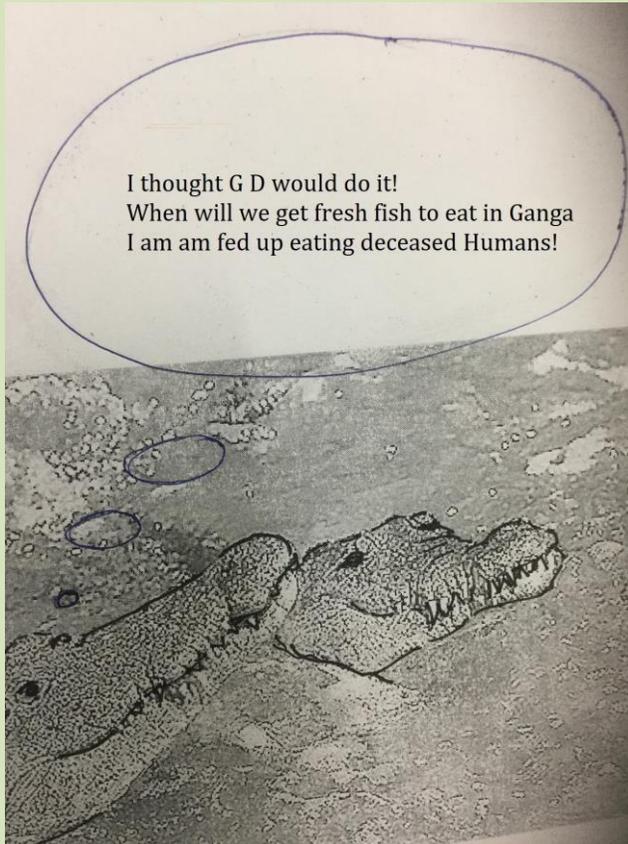


*News and Views -10 : Homage to G D  
from a g rao*

**Seasonal Cartoon**



***Mud gem 8***

***What is Wrong?***

***When Gandhiji fasted we got 'Independence!***

***When Potti Sreeramulu died after fasting 51days***

***We, in Andhra, went on to the streets***

***till Andhra Pradesh was announced***

***When an IIT professor G D Agarwal died after  
fasting 111days for 'Clean ganga',***

***there was not even a candle march in IIT!***

***to make my mud gems shine!***

### ***Recent additions***

1. [Fruit Bionics](#)
2. [Creativity 1<sup>st</sup> workshop 1982](#)
3. [Memory Lane 10 – Soul of NID](#)

### ***My thoughts***

## **Creativity and Commitment**

a g rao

I was rather lucky to spend a month with Prof. Howard E Gruber, Director of Cognitive Studies, Rutgers University Newark in 1980. Profs Donald Schön and Jeanne Bamberger, my teachers at MIT introduced me to Prof. Gruber and I tagged on to him. I became close to him as he was kind enough to treat me as a young friend.

I told him that I was with WJJ Gordon for a week in a workshop on Synectics,. He was skeptical of any such quick fix solutions. He said ,’Do you think people become creative in their life with few quick workshops like that!’ Later I discovered that prof. Gruber who was mentored by the famous philosopher/psychologist Piaget, had developed a unique approach to the study of Creativity. His “theory of the individual” encompasses the unique “organization of the system, an organization that was constructed by the person himself in the course of his life, in the course of his work, as needed in order to meet the tasks that he encountered and that he set himself” (Gruber 1985c, p.177).

His studies revealed that Charles Darwin had used 4 metaphors in arriving at his theory of ‘ survival of the fittest’. He considered Mahathma Gandhi as a great creative person!

With further Interactions with prof. Gruber I realized that there are **two zones of creativity**.

One dealing with operational creativity which keeps manifesting with many methods and forms conceived from time to time like Brain Storming, Synectics, Mind maps, Design Thinking,..... and so on. These may be useful for 'Innovations' in a 'Limited Industrial Context' in the accepted values of Society.

The other, deeper demanding change of oneself, often questioning the norms and values of current Society, like 'survival of the fittest'!

This is the zone where prof.G.D. Agarwal fits in. He was a professor at IIT Kanpur and became a monk and sacrificed his life for the cause of 'Clean Ganga'.

We (me and Uday) were fortunate to meet him in 1973 at Annupur, Shahdol district, MP. FREA group at Annupur was studying the effect of river pollution by a paper mill there under his guidance.

A simple unassuming person prof. Agrawal had inspired scores of students in IIT Kanpur. Dunu Roy, lead member of FREA(Bombay) and Arvind Gupta who recently became a Padmashree, Sheshadri, Gotke are some of them I knew closely.

**An unusual IIT Professor G D Agarwal, who embraced 'monk-hood' in later years of his life, passed away after fasting 111 days for the cause of 'Clean Ganga'!**

## Homage to prof. G. D. Agarwal



*Let us pay homage to an unusual, surprisingly simple IIT professor G.D. Agarwal who inspired and shaped many persons in discovering their creative selves and deep commitments.*

I am thankful to Dunu Roy who sent me a write up on his 'guru' prof. Agarwal, which was written for a magazine with a permission to put it in my website.

Such a remarkable human being

by

Dunu roy

We were on the bus from Shahdol to Varanasi. Suddenly, “roko roko” urged my companion to the driver, leapt out of the bus, and disappeared. A few moments later he returned, beaming, clutching a leafy plate of hot jalebis! This was the quintessential Guru Das Agrawal, who knew every delicacy (and cinema hall) on any route he covered, and this one he had travelled many times in the early 1960s when he was a young engineer building the Rihand dam, one of the pioneering ‘temples’ of Nehruvian India near Renukoot.

GD joined IIT Kanpur after building the dam and then went (to USA) – somewhat unwillingly, but the Director told him it would be a violation of the technical collaboration agreement signed by the IIT with the USA – to the University of California at Berkeley to complete his PhD. Once there, he reveled in the opportunity for learning that the university offered. But, apart from his academic pursuits, he also founded, along with some other remarkable expatriates, the Front for Rapid Economic Advancement of India (FREA India) as part of his continuing contribution to national rejuvenation. This curiously named ‘Front’ was a product of the thinking in those early days that without economic progress India would not be freed of poverty, and that science and technology were the chosen instruments for that progress. In 1969, a conspiracy by some of my fellows at the IIT Bombay, also driven by the same ideas into setting up FREA in India, lured me into joining and I was advised to go and meet GD who had returned to India and was again teaching at IIT Kanpur.

The opportunity offered itself when the new FREA in Bombay received a request for help from the publisher of a small Hindi weekly in Shahdol, complaining that people were suffering from the effluents released by the largest paper mill in Asia but the company refused to acknowledge that it was polluting the river Sone. This was well before there was any environmental legislation in India. So I boarded the earliest train to Kanpur and met GD. He asked me what I thought could be done. All I could think of was to somehow measure the pollution levels. He proceeded to dismiss every one of my ideas, and then slowly rebuilt all of them into a coherent whole. I was to discover that this was a characteristic pedagogic style of his: listen patiently to what the learner has to say; demolish it ruthlessly so that the learner is left shattered;

then provide a much more elegant structure to rethink (accompanied, of course, with generous helpings of aloo puri and kheer malai!). Four wide-eyed students were recruited from IIT Kanpur and that summer they conducted in Shahdol what was probably the first community-based environmental impact study in India. Sudhindra Seshadri was one of those students and he recalled that GD later said to him, “the value of something is what it leads to”.

GD’s concern for his students was legendary. Once, when three of them found they could not complete their course work because they had to leave for the USA, GD literally hauled them back from the railway station, took extra classes, and saw to it that they completed the course. It was probably the same kind of mentoring that led Anil Agrawal to set up the Centre for Science and Environment in 1980; and me, with a few other hare-brained fellow travelers, to move to Shahdol in 1973 to design an Environmental Plan. GD was a frequent visitor to Shahdol over the years and kept pointing other ways of looking at the problem. We had acquired a second-hand Fargo pick-up truck and Arvind Gupta converted it into a diesel version. Much to his dismay GD rechristened it, first as no-Far-go and then as Near stop, on the basis of its erratic performance; although he was happy to bounce along as it rattled all over the district. Many arguments raged with him as we mined his encyclopedic knowledge of chemistry, physics, biology, and botany to understand the society we were living in; and GD was often arrayed on the other side. As Arvind later confessed, “I was too much in the ‘left’ mode to understand and appreciate a gentle soul like GD”; but Sudhindra remembers GD saying, “I don't agree with you guys, but I love you.”

It was this love for learning and teaching that remained at the core of his being. Atul Jain, one of his close students at IITK, once asked him why he did not get married. GD’s response was, “The day I stop teaching you can ask me to get married. I can’t do both.” That, of course, did not prevent him from vigorous match-making as he would ask, with a twinkle in his eyes, “What do you think of A’s suitability for B?” GD moved on from IITK to become the first Member-Secretary of the newly formed Central Pollution Control Board – he was, as Sanjeev Ghotge, yet another IITK product reminded us, India's first ‘technically

qualified' environmentalist. From that period, the teaching and learning began to extend into the realm of all those young people outside the university system who were trying to tackle the problems of the environment. The Air Pollution Act was passed at this time and GD realised that Indian companies did not have the monitoring equipment required by the Act. When the big firms he called did not respond he roped in another ex-student, S K Gupta, to set up Envirotech to produce high volume air samplers. When GD finally resigned in disgust from the Pollution Board, SK reminisces with a chuckle, "I roped him in right back and he managed Envirotech into a successful company."

It was in the same spirit that he came to guide me through World Wide Fund for Nature's first (and last) workshop in 1990 to develop low-cost pollution monitoring techniques that would be useful for communities. The week-long workshop attracted an array of scientists, community organisers, activists, and trade unionists, and he was hugely influential in taking environmental science to the grass-roots. In the meantime he also began the move to Chitrakoot where he helped in setting up a department of environment at the new Mahatma Gandhi Gramodaya Vishwavidhyalaya, and also began preparing for retirement into a vriddhashram there. But the Banwasi Sewa Ashram in Sonbhadra sent me an appeal for help in monitoring pollution, I asked GD, and he happily jumped at the chance to return to the area where he had begun his career as an engineer. But what he saw of the complex of thermal power plants that had come up around the Rihand dam he had built and its reservoir, and the ensuing massive degradation, appalled him. This sparked off yet another experiment with community-based impact assessment with the Ashram, although GD would keep prodding me, "Where is the people's movement?"

He would often put this question to Shubha behn of the Ashram, and she remembers how at a public meeting on environment, after all the heads from different villages had spoken, GD gave vent to his flaming temper at all the talking and no action. He could be calmed down only after they gave him a written plan of action and took an oath that they would follow the plan and produce results by a given date. As Shubha recounts, "Even his anger was for us a prod to think and learn. He tore apart our note to help us to build a more

practical plan.” Ramkumar Vidyarthi, a child rights activist with Sahjeevan Samiti at the time, writes on Facebook of a different pedagogical approach which GD adopted in Tarang village. The primary school teacher there was often drunk and no amount of persuasion would get him to kick the habit. When GD expressed a desire to visit the school on Teacher’s Day everyone was in a quandary. Sure enough the teacher came smelling of mahua, but GD offered him flowers and a copy of the Gita and then touched his feet before explaining to the children the importance of the day. According to Ramkumar, “there was great improvement in both the teacher as well as the villagers, who rebuilt the dilapidated school”.

It was, I think, a combination of all these stints at teaching, in the government, a consultancy firm, with activists, and community groups all over the country that gradually led him back to his roots in western Uttar Pradesh. As he said, “I have to live my life by my code so why should I have to listen to what others say?” He became a swami to single-mindedly pursue his goal to see a clean Ganga once again. He brought his vast scientific knowledge to bear on the subject and tried to persuade the government as well as religious and social organisations to take some action, but he failed. He finally embarked on his final fast-unto death on June 22 this year. In August, Ravi Chopra (another old FREA hand) and I drove down to Rishikesh to see him and he was as matter-of-fact and lucid as ever. He gave us a clinical description of his symptoms and said, “I think my body will last for another six weeks. But don’t worry about me. I am satisfied with what I have done and my going will only give you more strength to do what needs to be done.” What could be more inspiring as guru-darshan?



Dunu Roy, October 12, 2018.