NICHOLAS AMBRASEYS MEMORIAL SYMPOSIUM
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WORKING WITH NICK

By

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Working with Nick

- As a Research Supervisor
- As a Teacher
- As a Colleague
- As a Friend

Nick as a Research Supervisor

- My association with Nick began in 1964 when he took me in as his first research student.
- At first, he suggested about researching on the historical seismicity of the region of Assam, India
- After spending several months in the libraries around London, no useful data of pre British Period was found which can be analysed. So, I gave up.
- I did not know then that he was going to be the famous expert on Historical Seismicity. I lost out on that count.

Nick as a Research Supervisor

- I Changed my research direction to Seismic Design of Earth Dams, which was my original plan before coming to Imperial College

- Nick was a brilliant mathematician. He already solved the problem of analytical response of earth dams to earthquakes.

- He also had practical sense of physical phenomena. He had ideas about the sliding phenomenon of slopes which he discussed with Newmark while he was in Illinois, USA.

- He passed these two ideas to me which I developed.

Nick as a Research Supervisor

- At that time computers arrived at Imperial College.

- Nick had a suit of digitised strong motion records (Ten earthquakes) which he digitised while in Illinois (manually using squared graph paper).

- We talked about the Base Line Correction problem of strong motion records.

- I developed the technique of the parabolic base line correction.

Nick as a Research Supervisor

- I wrote the computer programs to evaluate the response of dams to earthquake records and to evaluate the sliding displacements to these records.

- We looked at the results on a daily basis, analysing and finding meanings to those results, (perhaps the computer program is wrong and giving funny results!!).

- His brilliance at guiding research is confirmed then.

- Following that we looked at other problems like analysis of liquefaction phenomenon, Energy flux of strong Earthquakes etc. He left the "Earth Dam Problem" to me entirely.

Nick as a Research Supervisor

- As a Research Supervisor, he never dominated over the students, not just me but others as well, giving freedom to develop ideas of our own.

Nick as a Teacher

- As a teacher in the classroom, he was very interesting.

- He was quick witted. When faced with questions, he could immediately find equivalent every day examples to explain difficult phenomena.

- His knowledge was vast, not only on the immediate topics of lectures but on other subjects as well. That is why, he had no problem in finding examples and also research topics.

Nick as a Teacher

- Nick used to go on field expeditions to various parts of the world after devastating earthquakes. The knowledge that he gained passed these on to the students.

- He showed that it is important to study the failed structures but also at the same time study the structures that did not fail. This brought on the point of vulnerability of structures to earthquakes.

Nick as a Teacher

- He stressed the importance of the foundation soils on the inertia force on the structures. At the same time, foundation failure becomes important.

- He stressed the point that the proximity of a structure to the causative fault is not necessarily bad.

Nick as a Teacher

- These and other important observations were passed on to students.

- That is what made Nick a very interesting teacher.

Nick as a Colleague

- As a colleague, Nick was always willing to give advise on how to deliver lectures to make it interesting to students.

- This was the time when we started developing the Masters Degree Course on Engineering Seismology and Soil Mechanics.

- He started lecturing more on the Seismology side of the course while I started taking over the Soil Dynamics side.

Nick as a Colleague

- Also we started enlarging our data base of the strong motion records. As I said before, we started with ten records first.

- He became interested in the study of the attenuation of strong motion.

- That was when I developed a computer program on attenuation studies specially for him.

Nick as a colleague

- Nick had the habit of collating the strong motion data in different ways, depending on his thinking on the day. So, I wrote the program in such a way that even when he changes his style, he could work on the program without trouble. He then got hooked on the computer.

- Since then, he had worked with several other colleagues, such as John Douglas and Patrick Smith on collection of data and the attenuation studies.

Nick as a Colleague

- Doing statistical analysis, he observed several interesting points.

- For example, Given a reasonable hypothesis and enough observations, one can always find statistical correlations between data, even though these may not be meaningful.

- So, Be careful with statistical analysis.

Nick as a Friend

- Nick was a very good friend to me and my family. He was always very interested in knowing about my family and I always told him about my son and daughter and my grand sons and grand daughter.

- I will always miss Nick.