

Taj built on ancient Indian measurement

Cop who bashed up a senior faces probe

By Mail Today Bureau in New Delhi

AN INQUIRY has been ordered against a Delhi Police constable who had allegedly bashed up a sub-inspector when the latter stopped him from demanding bribes at a police picket.

The incident happened on May 21. Constable Arvind, 29, who was posted at the Chanakyapuri police station, was suspended after initial inquiry found him guilty.

Though neither of the two officers involved in the incident were willing to speak about it, senior officers confirmed the matter.

A police officer said that the complainant in the matter was sub-inspector R.K. Dubey. He was posted along with Arvind at a vehicle checking picket in Chanakyapuri.

"The constable was reportedly drunk while on duty on the day of the incident. He and Dubey were doing routine vehicle checking when the constable stopped a vehicle and demanded money from the person," a police officer said.

The S-I stopped him from taking bribe

Dubey tried to stop him, asking what he was doing. "Initially, the constable ignored him, but when Dubey pressed him to stop demanding bribe, a heated argument ensued between the two," the officer said.

"Arvind was armed with a service revolver. He kicked and bashed up his senior official. Dubey later claimed that he maintained restraint as the constable was drunk and armed," he said.

Dubey reported the matter at the police station after the constable had left.

Officers said Dubey continues to report for duty at the Chanakyapuri police station while Arvind has been under suspension.

Arvind reportedly hails from the Bhind-Morena area of Madhya Pradesh. The Chanakyapuri police station was his first posting where he has been on duty for the past three years.

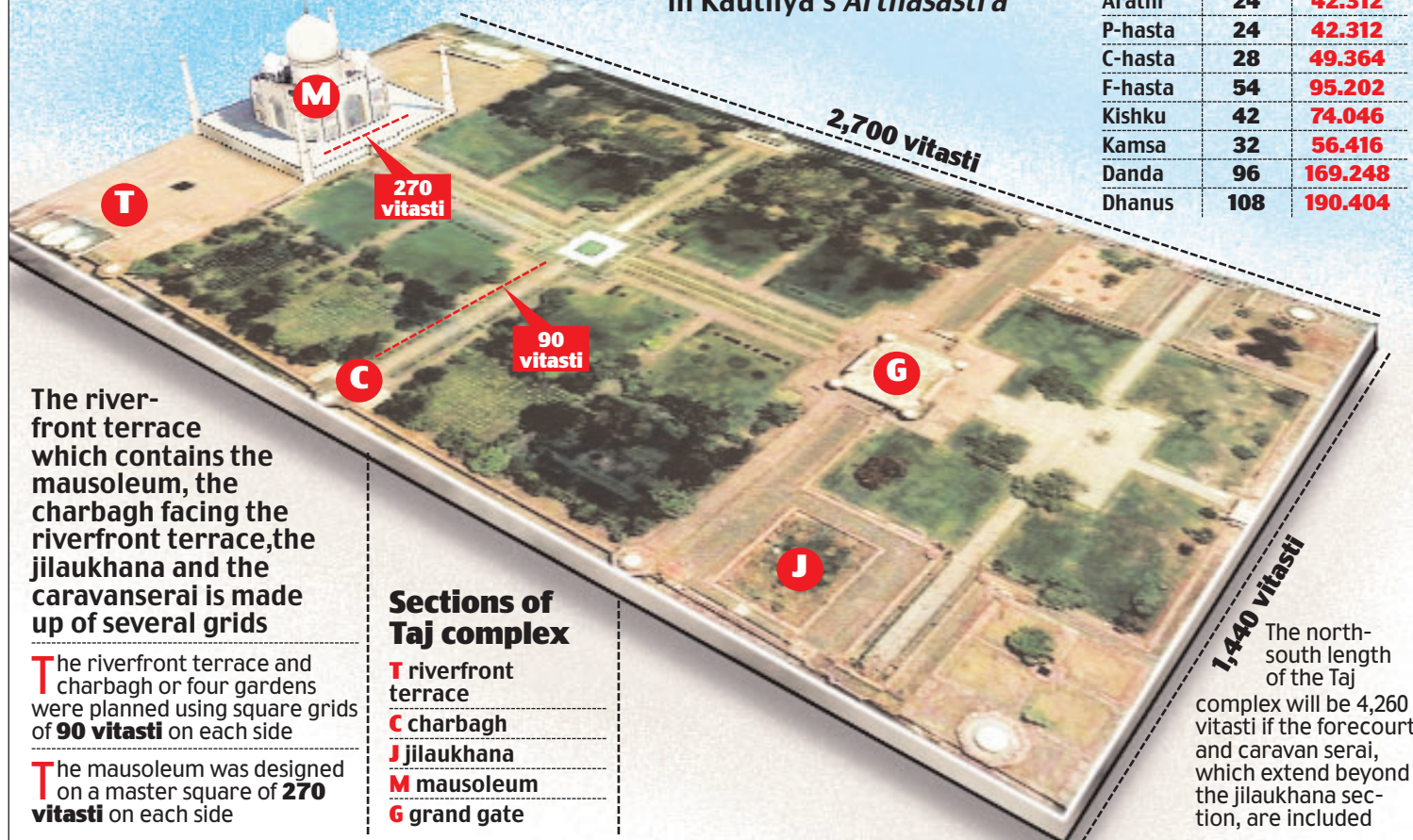
Dubey is from Bihar and has been living in the Capital with his family for many years.

Senior police officers said the officials conducting the inquiry could also take a statement from the motorists who were there at the spot when the incident happened.

"We believe that their registration number is available and their statements on what had happened could be more than substantial proof against the constable," a senior police officer said.

Measuring the monument of love

The engineering plan of the Taj complex can be fully explained using units of measurement mentioned in Kautilya's *Arthashastra*



The riverfront terrace which contains the mausoleum, the charbagh facing the riverfront terrace, the jilaukhana and the caravanserai is made up of several grids

The riverfront terrace and charbagh or four gardens were planned using square grids of 90 vitasti on each side

The mausoleum was designed on a master square of 270 vitasti on each side

Sections of Taj complex

T riverfront terrace

C charbagh

J jilaukhana

M mausoleum

G grand gate

The north-south length of the Taj complex will be 4,260 vitasti if the forecourt and caravan serai, which extend beyond the jilaukhana section, are included

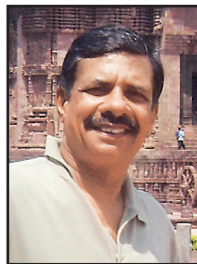
By Dinesh C. Sharma in New Delhi

'IRON' MAN'S DISCOVERY

An archaeometallurgist at IIT-Kanpur, R. Balasubramaniam has conducted the new study on Taj complex's measurement. He is best known for his work on the Delhi Iron Pillar and cannons.

In order to understand the exact reason for the corrosion resistance of the iron pillar, he analysed the composition of the rust on a Gupta period corrosion resistant iron clamp and also the rust on the Delhi iron pillar. He has

provided fresh insights into the earliest engineered caves of India (Barabar and Nagarjuni hills dating to the Ashoka period — 300 BC), the Gupta temple at Deogarh as well as the Humayun's Tomb complex.



describe the complex, but their analysis has been shown to be imprecise and incorrect, points out the new study conducted by R. Balasubramaniam, eminent archaeometallurgist at the Indian Institute of Technology-Kanpur.

The results of the study will appear in scientific journal *Current Science* on Friday.

The finding shows that the planning of the Taj complex and all the buildings inside is based on traditional Indian civil engineering principles that had been in vogue for a long period in Indian history, Balasubramaniam said. "This confirms that there is nothing foreign in the

design of the Taj and it is all due to the ingenuity of the people of this subcontinent. Based on this confirmation, it is now possible to analyse all historical structures in India, particularly Mughal structures, using the traditional Indian units."

"Using the basic multiplying factor of the *angulam*, we can decipher the engineering plans of most buildings and structures in India. We have discovered our scientific measurement heritage," the researcher said.

According to the new analysis, the riverfront terrace and gardens were planned using square grids of 90 vitasti on each side,

while the forecourt and caravanserai section are square grids of 60 vitasti on each side. The logical numbers that result for the dimensions have been analysed to show the ease of division of these numbers into symmetric elements.

The mausoleum was designed on a master square of 270 vitasti on each side. The number 270 (3×3×3×10) is noteworthy because of the many ways in which space represented by a square of 270 vitasti can be divided. The factor 10 in 270 facilitates the decimal division of dimensions. This is important, especially considering the intricate inlay and exquisite mosaic work on the walls and floor of the Taj Mahal, which were planned and executed to a well-devised scheme. Their dimensions can be rationally understood in terms of vitasti.

When measured in gaz, the numbers that appear are illogical and can't explain precise planning and high quality of workmanship in the complex, the study says.

The IIT researcher says *Arthashastra* units can be used to understand engineering plans of most engineered structures of the Indian subcontinent through the ages, till the adoption of British units. The *angulam* was derived from plans of Harappan civilisation settlement sites.

Rahul ropes in former CECs for Youth Congress polls

IN HIS mission to democratise the party, Rahul Gandhi plans to conduct organisational elections in the Indian Youth Congress (IYC) all over the country.

And he has roped in former election officials of impeccable credentials such as James Michael Lyngdoh, T.S. Krishnamurthy and K.J. Rao for the smooth conduct of the internal polls.

Elections in the IYC units of Punjab, Gujarat and Pondicherry were already held recently under the supervision of former chief election commissioner (CEC) Lyngdoh and Rao.

Rahul on Wednesday said next on his radar was Tamil Nadu where elections in the party's youth wing would be conducted by next month. "Initially, there

By Kay Benedict in New Delhi

were some problems in Gujarat but they were sorted out. We are getting better each time," he said.

Sources said former CEC Krishnamurthy will be in charge of the Tamil Nadu elections. They said Rahul accepted the former election officials' suggestion that any candidate charged with a crime punishable for two years or more under the law should be barred from contesting the organisational elections.

After Tamil Nadu, Rahul is likely to turn his attention to Uttar Pradesh and Bihar.

Rahul, who is AICC general secretary in charge of the IYC and the National Students Union of India (NSUI), said UP will

be divided into four zones for the election management purpose. Each zone will have a president. The Amethi MP is giving special attention to UP after the party's impressive performance in the state in Lok Sabha elections.

Apart from the organisational elections, Rahul is also recruiting men for the frontal organisations through a 'talent search' programme.

Recently, he dispatched a six-member team — it included IYC president and Lok Sabha MP Ashok Tanwar, AICC secretary and Alwar MP Jitendra Singh, Deependra Singh Hooda and former Union minister Jagdish Tytler — to Uttarakhand to recruit members for the youth Congress. Sources said as many as

300 aspirants appeared for the interview.

Rahul has also started performance assessment of the IYC office bearers in various states for the job assigned to them during the recent general elections, a party source said.

The much-awaited AICC reshuffle is also likely to take place by this month-end. With four general secretaries — Ghulam Nabi Azad, Prithviraj Chavan, Mukul Wasnik and V. Narayanaswamy — and secretaries Jairam Ramesh and Jitin Prasad being made ministers, new faces are likely to fill their organisational posts.

A senior leader said though the party wants to implement the one-man-one-post principal, there could be exceptions in special cases.