

# A&M prof says water-soaked wood makes better violin

**University News Service**

Dr. Joseph Nagyvary, professor of biophysics and biochemistry, said new evidence shows the wood Stradivari used to make his violins was soaked in water — not dry seasoned as is commonly believed.

Modern violins are made with wood that has been seasoned, a process Nagyvary says is a great mistake and diminishes the quality of sound.

Nagyvary said microscopic examination of wood samples taken from several violins made by Stradivari, Guarneri and other important 17th and 18th century Italian craftsmen revealed century-old traces of fungi that altered the shape of the wood cells. The fungi could have come only from water immersion, he said.

Several years ago, Nagyvary, who has carried on a long-standing love affair with violins and violin making, discovered a dra-

matic difference between the wood used in a Guarneri instrument and what is used in modern violins.

Using electron microscope photographs provided by James R. Scott at A&M's Electron Microscopy Center, Nagyvary found a larger amount of the pit holes in the Stradivari wood cells were open, compared to the holes in commercial tone wood, which is dry seasoned.

Recently, he discovered the presence of water fungi, which eat away gummy material in the wood and make it lighter and dryer. The fungi also force the cell walls to separate or loosen up.

To determine if he could corroborate the evidence he gleaned from the fungi with historical information, Nagyvary traveled to Europe and examined old shipping records stored in villages and monasteries. The records showed logs had been sent

downstream along the rivers leading from the Tyrolean Alps, the Bolzano area — where much of the wood used for violins was cut — to the Italian towns where the instruments were made.

"Most (modern) violin makers have denied that water transportation of the logs was important," he said. "They insisted that the (Italian) violin makers went to the Alps and got their wood dry, just like the German makers who settled in the Alp valley of Mittenwald. But these makers never made great violins."

Nagyvary said he found additional evidence about water immersion in the minerals deposited on the wood. He said the ratios of calcium, potassium and sodium found on the wood exactly match the minerals found in many waters of Lombardy, and even correspond with the proportion

found on the labels of bottled mineral waters from northern Italy.

Using his new-found knowledge, Nagyvary commissioned craftsmen in Bulgaria, Hungary and Italy to make 18 violins from wood, on which the amphibian fungi had acted.

"According to unbiased musicians, the violins are very strongly similar in tonal quality to the old Italian violins," he said.

He said the musicians in the Houston Symphony Orchestra, Oberlin College and the Curtis Institute of Music in Philadelphia are using his violins. Top violinists such as concertmasters Glenn Dicterow of the New York Philharmonic and Victor Aitay of the Chicago Symphony Orchestra have played and praised earlier instruments he developed several years ago.

Nagyvary's research has been difficult because of a lack of funding for his re-





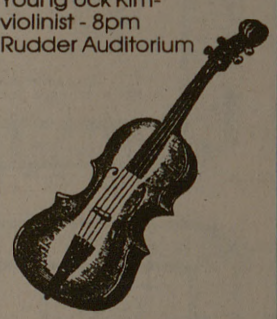
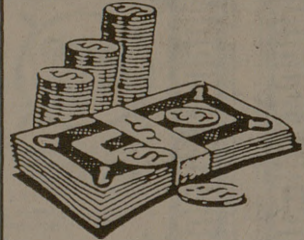
search and the scarcity of wood.

He said it took 10 years to find separate samples, which were purchased by the curator of instruments at the U.S. Library of Congress in Washington. The samples were taken from violins made by Stradivari and two by Guarneri during the course of repairs.

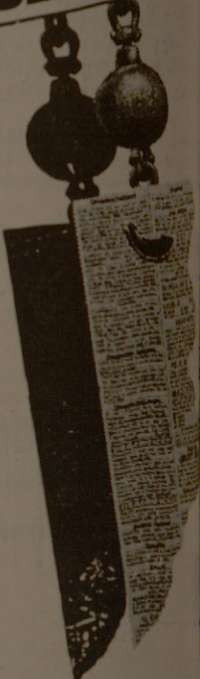
Many violin dealers and makers have given little credence to his claims of acoustical consequences of different composition.

"They deny it because it is embarrassing to admit that most violins made of the wrong wood during the last 150 years," Nagyvary said. "What is wrong is that the seasoning of the wood is bad. For the aficionado, it will be hard to accept that the missing secret lies behind the Stradivari tone is not his genius but merely a fungus."

# What's Up at the MSC

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
2	3	4	5	6	7	1/8
			MSC Great Issues Dr. Lo Piccolo "Love & Sex in the 80's" 8 p.m. Rudder Auditorium \$1		MSC Townhall Dan Peak 8 p.m. G. Rollie White \$3	
MSC Travel Mardi Gra Trip Feb. 7-9 MSC Nova Warcon Feb. 7-9 Passes available at Ticketron outlets/Registration 3 p.m. Fri.						
MSC Literary Arts Used Book Sale February 3-7 Rudder Fountain Area						
9	10	11	12	13	14	15
MSC Townhall Lee Greenwood 8 p.m. G. Rollie White \$8-9.50		"MSC Opas Vienna Choir Boys 8 p.m. Rudder Auditorium" <b>SOLDOUT</b>	MSC Travel Ice Cream Social 7 p.m. 216 MSC		MSC Variety Show "You Ain't Seen Nothin' Yet" Applications due 5 p.m. 216 MSC	MSC Literary Arts Submit material to Litmus, 216 MSC  MSC College Bowl Faculty/Staff Tournament Contact Ruth 845-1515
MSC Travel MSC Nova						
MSC Scona "Myriad Challenges of the Middle East" Feb 12-15 Lectures open to Public, Free						
16	17	18	19	20	21	22
MSC Variety Show Mandatory Meeting 7pm  MSC All Nite Fair Applications due 5pm 216MSC \$25 deposit due	MSC BAC/Great Issues Charles King 7pm Rudder Theatre  MSC TAMU Talent Previews Noon Main Lounge	MSC Travel Great Britiam Trip Orientation 7pm Rudder 404  MSC Political Forum Gubernatorial Series, Gov. Bill Clements 8pm 206 MSC  MSC Hospitality Mr. Aggie Contest MSC Main Lounge	MSC Travel American Music tour 8pm G. Rollie White \$11  MSC Hospitality MSC TAMU Fashion Show - Noon MSC Main Lounge		MSC Opas Young Uck Kim- violinist - 8pm Rudder Auditorium	MSC Black Awareness Committee Formal Hilton \$20  MSC Hospitality Miss TAMU Pageant 7pm Rudder Auditorium \$4 students
						
MSC College Bowl Regional Tournament						
23	24	25	26	27	28	
	MSC OPAS/BAC "Regency" in concert Rudder Theatre		MSC Travel Travel in Europe on a Budget 7pm Rudder Tower	MSC Wiley Lecture Series Applications available for Seminar Participants  MSC Townhall Broadway 42nd Street 8pm Rudder Auditorium		
 MSC Variety Show Feb 24-26 "You Ain't Seen Nothin' Yet" Auditions 201 MSC						

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