

= Ralph Patt =

Ralph Oliver Patt (5 December 1929 ? 6 October 2010) was an American jazz @-@ guitarist who introduced major @-@ thirds tuning . Patt 's tuning simplified the learning of the fretboard and chords by beginners and improvisation by advanced guitarists . He invented major @-@ thirds tuning under the inspiration of first the atonal music of Arnold Schoenberg and second the jazz of John Coltrane and Ornette Coleman .

He graduated with a degree in geology from the University of Pittsburgh . After his career as a guitarist , he worked as a geologist and as a hydrologist , often consulting on projects related to the U.S. Department of Energy .

= = Biography = =

Patt was born in Kittanning , Pennsylvania on 5 December 1929 and studied geology at the University of Pittsburgh .

= = = Guitar and music theory = = =

While in Pittsburgh , Patt studied guitar under Joe Negri . Patt played rhythm guitar in the style of Freddie Green , who played a Stromberg in the Count Basie Orchestra . Having earned his baccalaureate degree , he joined the United States Army and played guitar in an Army band . Following his 1955 discharge from the Army , Patt played with touring bands , for example , Neal Hefti , Frankie Carle , Les Elgart , Benny Goodman , Richard Maltby , and The Glenn Miller Orchestra .

After touring for five years , Patt settled in New York City , where he worked as musician both at ABC and on Broadway from 1960 to 1970 ; during this period he regarded Barry Galbraith as his mentor . He studied under George Russell , whose (1959) Lydian Chromatic Concept of Tonal Organization Patt edited . Patt also studied with Gunther Schuller , who himself was a student of Arnold Schoenberg and who used Schoenberg 's twelve @-@ tone technique for atonal composition . Patt wanted to be able to play and then to improvise twelve @-@ tone music .

= = = = Major @-@ thirds tuning = = = =

Patt was inspired by the jazz of Ornette Coleman and John Coltrane and the atonal music of Schoenberg . Seeking a guitar @-@ tuning that would facilitate improvisation , he introduced major @-@ thirds tuning by 1964 , perhaps in 1963 . Patt 's tuning is a regular tuning in the sense that all of the intervals between its successive open strings are major thirds ; in contrast , the standard guitar @-@ tuning has one major @-@ third amid four fourths . Patt used major @-@ thirds tuning during all of his work as a session musician after 1965 in New York .

Major @-@ thirds tuning packs the chromatic scale (the consecutive twelve @-@ notes of the octave) onto four consecutive frets of three consecutive strings , an arrangement that reduces the extensions of the little and index fingers (" hand stretching ") . Major and minor chords are played on two successive frets , and so require only two fingers ; other chords ? seconds , fourths , sevenths , and ninths ? are played on three successive frets . For each regular tuning , chord patterns may be moved around the fretboard , a property that simplifies beginners ' learning of chords and that simplifies advanced players ' improvisation . In contrast , chords cannot be shifted around the fretboard in the standard tuning E @-@ A @-@ D @-@ G @-@ B @-@ E , which requires four chord @-@ shapes for the major chords ; standard tuning has separate chord @-@ forms for chords having their root note on the third , fourth , fifth , and sixth strings .

Having exactly three pitch classes for its open notes (for example { C , E , G ? }) , each major @-@ thirds tuning repeats every note in a higher octave , because guitars have six strings . Being regular , M3 tunings repeat each note after two strings : this repetition simplifies the learning of chords and improvisation . Chord inversion is especially simple in major @-@ thirds tuning . Chords

are inverted simply by raising one or two notes three strings . The raised notes are played with the same finger as the original notes .

===== Guitars with seven and eight strings =====

Major @-@ thirds tuning has a smaller scope than standard guitar @-@ tuning , and so Patt started using seven @-@ string guitars , which enabled major @-@ thirds tuning to have the E @-@ e ' range of the standard tuning . He first experimented with a wide @-@ neck Mango guitar from the 1920s , which he modified to have seven strings in 1963 . In 1967 he purchased a seven @-@ string by José Rubio . Patt used major @-@ thirds tuning when he performed as a session musician in New York City after 1965 .

Later , he purchased six @-@ string archtop hollow @-@ body guitars that were then modified by luthiers to have wider necks , wider pickups , and eight strings . Patt 's Gibson ES @-@ 150 was modified by Vincent " Jimmy " DiSerio , a luthier who worked in the firm of John D 'Angelico , circa 1965 . Luthier Saul Koll modified a sequence of guitars : a 1938 Gibson Cromwell , a Sears Silvertone , a circa 1922 Mango archtop , a 1951 Gibson L @-@ 50 , and a 1932 Epiphone Broadway ; for Koll 's modifications , custom pick @-@ ups accommodated Patt 's wide necks and high G ? (equivalently A ?) ; custom pick @-@ ups were manufactured by Seymour Duncan and by Bill Lawrence .

Besides these guitars , Patt regularly played other stringed instruments as a recording musician : classical guitar , 12 @-@ string guitar , 6 @-@ string bass guitar , mandolin , banjo , and oud . Patt stated that " the only guys that didn 't have to double on dates were the Tony Mottolas and the Johnny Smiths " ; Tony Mottola and Johnny Smith were famous jazz @-@ guitarists , and " doubling " refers to a musician 's switching from one instrument to another , particularly within a family of instruments . Patt worked primarily as a studio musician from 1970 to 1975 .

===== Scholarship =====

Patt developed a webpage with extensive information about major @-@ thirds tuning . This webpage was part of website with extensive information for jazz guitarists . Patt 's website published his Vanilla book , which contains the chord progressions for four @-@ hundred jazz standards , from " After you 've gone " to " Zing ! went the strings " . Its title refers to " Just play the vanilla changes " , advice to young pianists from Lester Young . It was updated in 2008 .

His website followed earlier contributions to guitar scholarship and instruction . In 1962 , Patt wrote his Guitar chord dictionary (1962) . Living in New York City in the 1960s , he studied with Chuck Wayne , with whom he wrote The guitar appreggio dictionary (1965) , one of the bestselling titles from the music @-@ publishing firm of Henry Adler .

===== Return to geology =====

As a studio musician in the 1970s , Patt had to play less jazz and more rock and roll , and so he changed careers . He returned to geology while continuing to pursue jazz as an avocation . Around 1975 he began working on his doctoral degree in hydrogeology . Employed by the US Department of Energy , he specialized in ground @-@ water contamination from nuclear waste ; as a research hydrogeologist , he accepted assignments world @-@ wide and had extensive travels in Ukraine and Russia .

He was employed by Oregon 's Department of Water Resources , where he served as its expert on the risks to the Columbia River from the Hanford Site . As a hydrological geologist (hydrologist) , he was appointed to a panel of outside experts that reviewed and then " slammed " the U.S. Department of Energy 's report on the safety of the underground storage of high @-@ level nuclear waste at Hanford .

===== Death =====

In 2002 and 2010 , Patt 's hometown was listed as Canby , Oregon , near Portland . Having been diagnosed with kidney cancer in 2007 , Ralph Oliver Patt died at the age of 80 on 6 October 2010 in Canby at home . To honor his memory , the Ralph Patt Memorial Scholarship provided full tuition , room , and board for a college student to attend the Mel Brown Jazz Camp in 2011 .