

In the 1930s electric guitars were available but these were amplified Spanish models plagued with feedback problems... this is what happened next...

Late **1940s**: Leo Fender sets about making electric guitar resistant to feedback associated with amplified hollowbodies.
1950: Fender Esquire/Broadcaster 1/2 pickups.
1951—Broadcaster becomes **TELECASTER**—still in production



TELECASTER—still in production—Bright, twangy versatile sound
Muddy Waters, Keith Richards, Bruce Springsteen, Andy Summers (Police), Joe Strummer, Jimmy Page (early)

1952: FENDER PRECISION BASS
Round crisp sound in all registers. Much more manageable in terms of portability and playing (has frets!)
James Jamerson (Motown), Jaco Pastorius, Sting and MANY MANY more



Impossible to overstate the impact of the electric bass on popular music in the later 20th century.

1930s: Les Paul (remember him?) had been building handmade, experiments with solidbodies—e.g. The 'Log'
1952: GIBSON LES PAUL
More complex than the simple Tele Diff models: Custom, Standard etc.
Standard used two-coil Humbucker pickups: Louder than single-coil and cancels 'hum'.



GIBSON LES PAUL—Versatile, rich powerful, excellent sustain
Jeff Beck, Jimmy Page (later), Slash, The Edge, Tony Iommi (Sabbath), Neil Young



1960: HOFNER 500/1
Paul McCartney's 'violin' bass. Couldn't afford a Fender in 1961!
Warm round tone



GIBSON ES (Electric Spanish)
Late **1930s** (ES-150) with problems
1958: ES-335—warmth of hollowbodies regained with semi-acoustic design



GRETSCHE WHITE FALCON
1955: Twangy, rich sound—country feel
Stephen Stills, Neil Young, John Frusciante (Red Hot Chili Peppers)

RICKENBACKER
Had produced 'Frying Pan' electric as early as 1931 but were overshadowed by Gibson and Fender until 1960s.



1964: RICKENBACKER 360-12
Jangly, shimmering tone
Beatles, Byrds, REM



1961: GIBSON SG—Powerful 'honking' sound
Redesign of lagging Standard disowned by Les Paul
Angus Young (AC/DC)



1987: IBANEZ JEM—Designed with Steve Vai to meet needs of 'shredding' guitarists
Whammy bar without tuning problems and a 'monkey grip' handle!



1961–81: RICKENBACKER 4001
Bass guitar with warm but driving sound
Big in rock from Deep Purple to Lemmy to Stone Roses to various current bands (probably 4003s)

As important as your knowledge of the development of various technologies is **WHY** they developed and the subsequent influence of these developments

1920s: Acoustic guitar is an important instrument in blues and jazz but is struggling to be heard over the brass and drums

Late 1920s: George Beachamp uses magnets and wound copper coil to turn the vibration into a corresponding electrical voltage. This electro-magnetic device is called a **pickup**.

1931: First guitar to use Beauchamp's coil is the '**Frying Pan**' developed with **Rickenbacker**. Used on lap and popular with Hawaiian style players

1936: First **Gibson ES-150** (Electric Spanish—\$150) made famous by jazz virtuoso Charlie Christian. Lots of unwanted feedback.

1946: Les Paul credited with first hand-built solidbody to reduce feedback: '**The Log**'.

1951: Fender develops Broadcaster—renamed **Telecaster** due to name clash with Gretsch drums. **First commercially available solidbody electric**

Jazz musicians don't like the bright twangy Telecaster and prefer Gibson ES series. However, the Telecaster is immensely popular with country, blues, rock 'n' roll

1954: Fender responds with wider tonal range of Stratocaster. This became **the** guitar of rock through Jimi Hendrix

1951: Fender develops Precision Bass to meet need of bass players to be heard over drums and amplified guitars

1957: Elvis Presley's bass player Bill Black uses Precision on Jailhouse Rock laying foundation for it to become **the** standard instrument in pop

'Humbucking' pickups literally designed to buck the hum... They consist of two coils (instead of a single coil) wired in series and with opposite polarity enabling them to cancel out extraneous noise (such as that generated by AC power sources in the same way as a balanced cable

1952: Gibson respond to Fender's success with Les Paul with warm P90 pickup.
1957: Les Paul classic with **Humbucking** pickup

1957 Les Paul had a less twangy tone and a higher output making it more suited to 1960s rock guitar. E.g. Jimmy Page in 70s

These Fender and Gibson models from 50s and 60s are not just design classics and collectors items but form the basis of most guitar design up to today

1980s: Designs by Jackson/Charvel and Ibanez to meet the needs of virtuosos such as Steve Vai and Eddie Van Halen are effectively 'super-Strats'

Adjustments include: 2 octave neck, lower action (easier to fret for tapping /shredding), locking tremolo arm for wild pitch bends

2002: Variax modelling guitar launched by Line 6 claiming to be able to emulate all the classic guitars as well as banjos and sitars

Line 6 also produce the **POD** series of guitar processors that can model various guitar/amp tones and effects. These are facilitating the ability to DI electric guitars



1954: Fender STRATOCASTER

Following complaints about the basic Telecaster, Fender brought this out. Wide tonal range, tremolo arm, range of car colours

Jeff Beck, Jimi Hendrix, David Gilmour (Pink Floyd)

Now: In terms of playing, it is still the classic designs that are the instruments of choice. If anything, it is the fancy models of the 80s which have fallen out of fashion for mainstream artists—though there will be always be a market in the world of heavy metal... In terms of emulation, the guitar and amp modelling plug-ins that you use in Logic are able to transform the most everyday, cheap guitar into something...er...better—even if it isn't really the same as the real thing.

PTO for some more guitars...