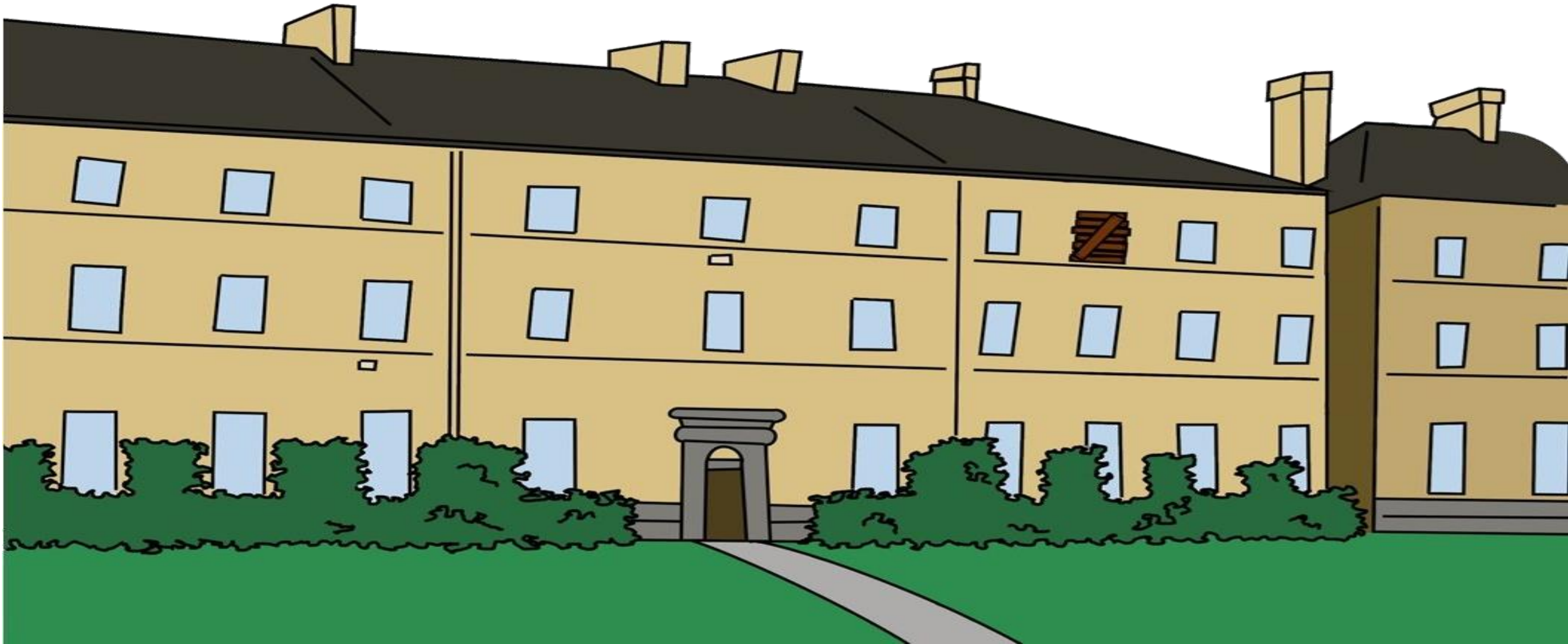


Baker Street *Elementary*

PRESENTS
"THE LIFE AND TIMES IN VICTORIAN LONDON"



Baker Street Elementary

THE LIFE AND TIMES IN VICTORIAN LONDON
083 -- LEND ME YOUR EAR -- FEBRUARY, 2022



WELCOME TO TOPIC # 083... TODAY WE WILL BE
LOOKING AT EARS IN THE SHERLOCK HOLMES STORIES.



IN 'THE ADVENTURE OF THE CARDBOARD BOX,'
YOU TELL ME, "[T]HERE IS NO PART OF THE BODY
WHICH VARIES SO MUCH AS THE HUMAN EAR."



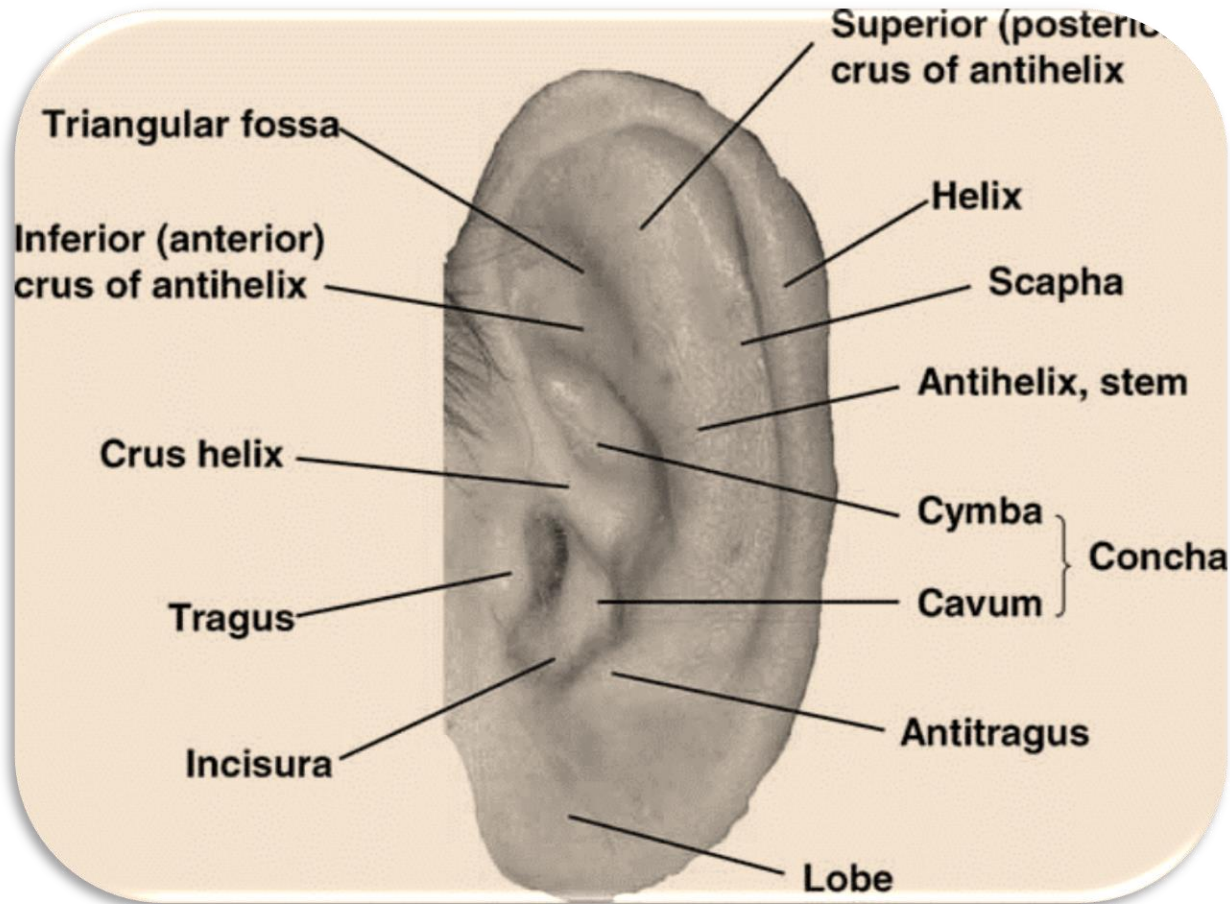
AT THE SAME TIME, AFTER AN EXAMINATION OF
THE EARS SENT TO SUSAN CUSHING, YOU
DISCOVERED ONE CORRESPONDED 'EXACTLY' TO
THAT OF THEIR RECIPIENT.



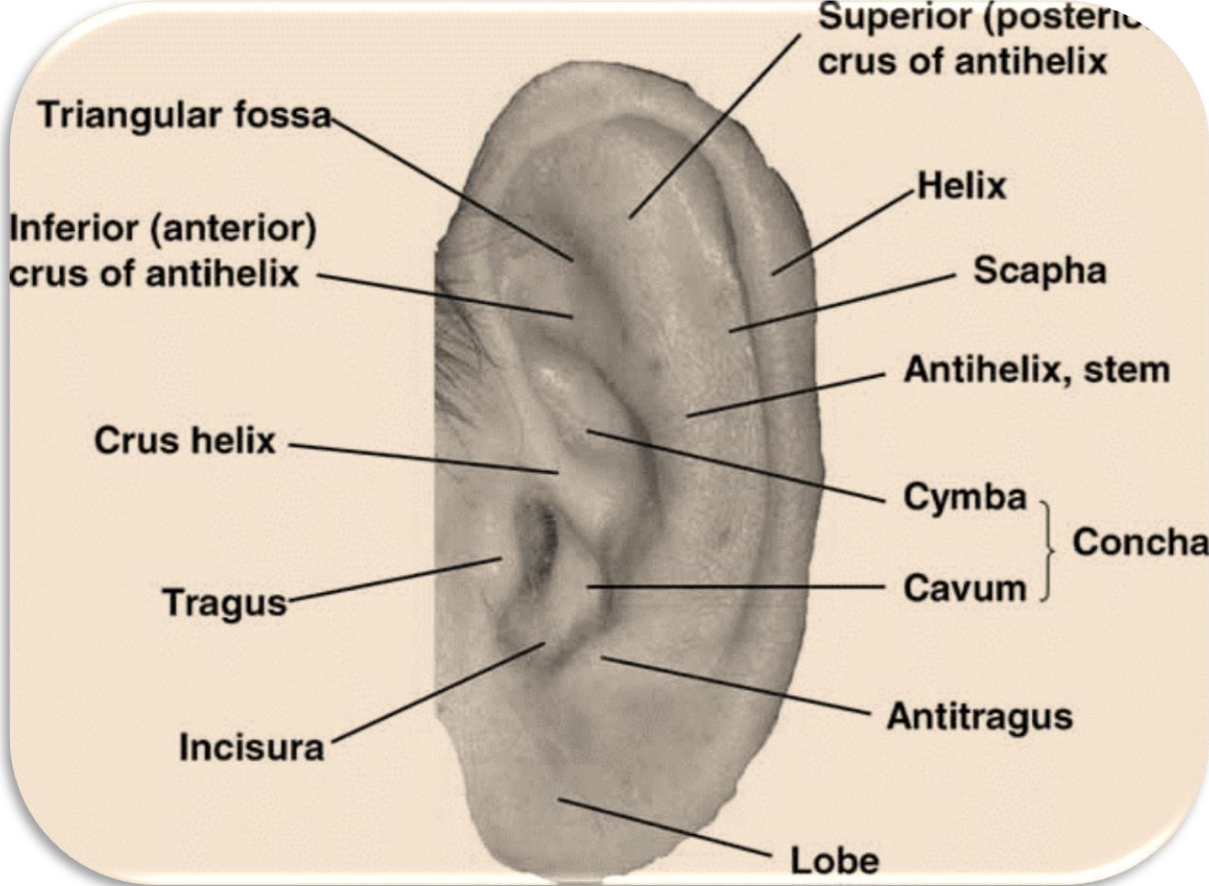
WHILE NOT AS WELL-KNOWN OR USED AS FINGERPRINTS, EAR PRINTS HAVE BEEN USED TO ESTABLISH A SUSPECT'S PRESENCE AT A CRIME SCENE BECAUSE THEY ARE UNIQUE TO THE INDIVIDUAL, DESPITE THE CUSHING SISTERS' EXACT MATCH IN YOUR OBSERVATION.



THE PINNA, OR AURICLE, IS THE VISIBLE PART OF THE EAR AND INCLUDES THE FOLLOWING PARTS THAT VARY FROM PERSON TO PERSON THE HELIX, DARWIN'S TUBERCLE, THE ANTIHELIX, THE SCAPHA, THE CRUX OF THE HELIX, THE INCISURA INTERTRAGICA, AND THE LOBULE.



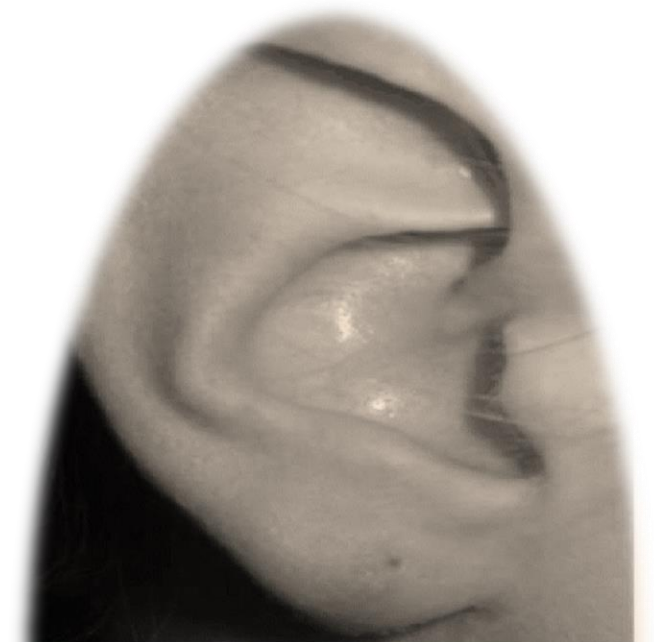
CERTAIN CHARACTERISTICS OF THE PINNA ARE INHERITED... FOR EXAMPLE, APPROXIMATELY FORTY-NINE GENES AFFECT WHETHER EARLOBES ARE ATTACHED OR UNATTACHED.



PROMINENT, OR PROTRUDING, EARS, WHICH OCCUR DUE TO A LACK OF CARTILAGE OR MALFORMED CARTILAGE, ARE ALSO INHERITED.



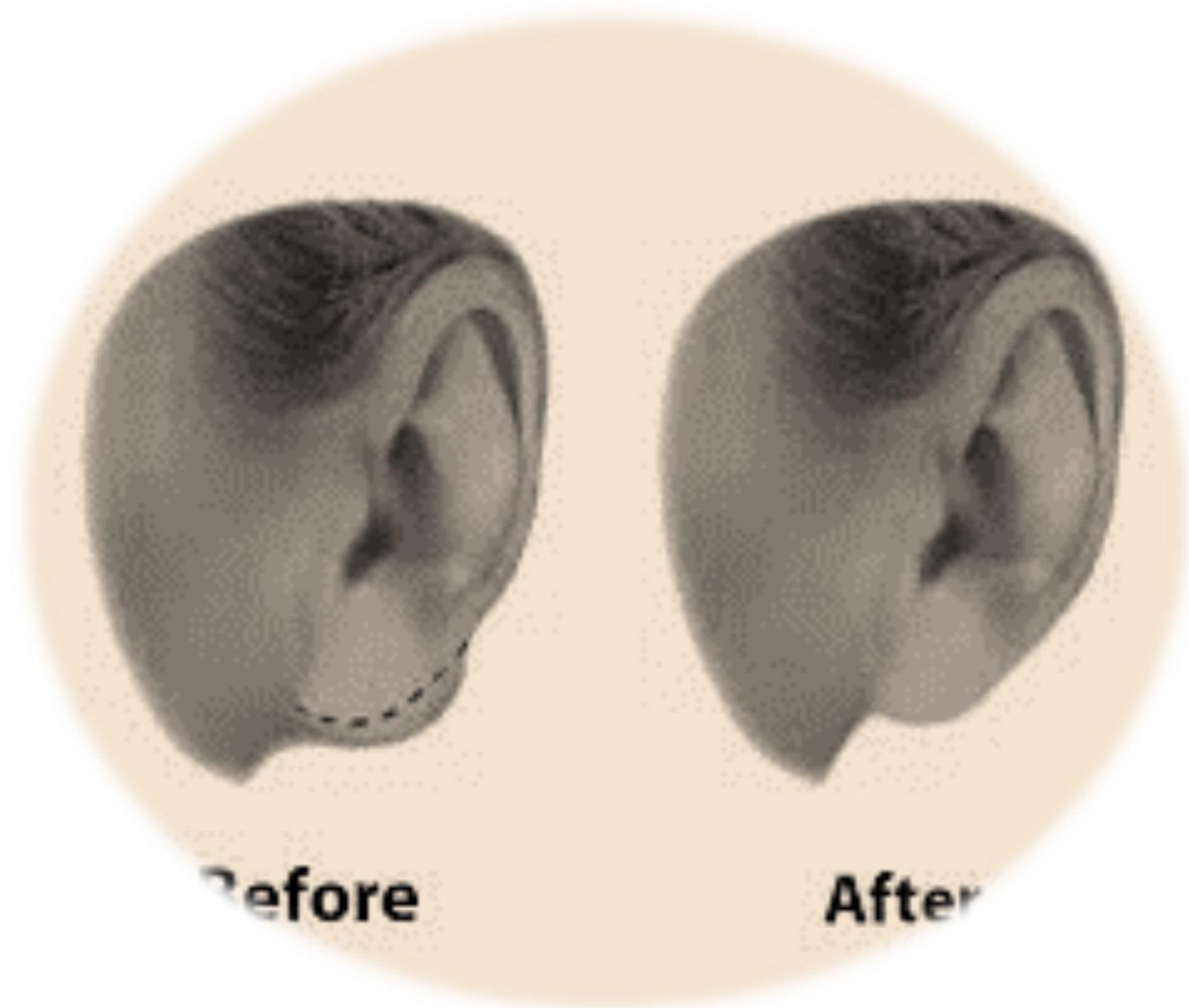
ADDITIONAL RESEARCH HAS CONFIRMED THE FOLLOWING GENERALIZATIONS ABOUT EAR SHAPE: MEN'S EARS ARE LARGER, EARS CONTINUE TO GROW...



Swollen and tender right earlobe.



...IN LENGTH AND WIDTH AS WE AGE, THE LEFT AND RIGHT EARS TEND TO BE SYMMETRICAL, AND THE OVERALL SIZE OF EARS VARY ACCORDING TO ETHNIC GROUPS.

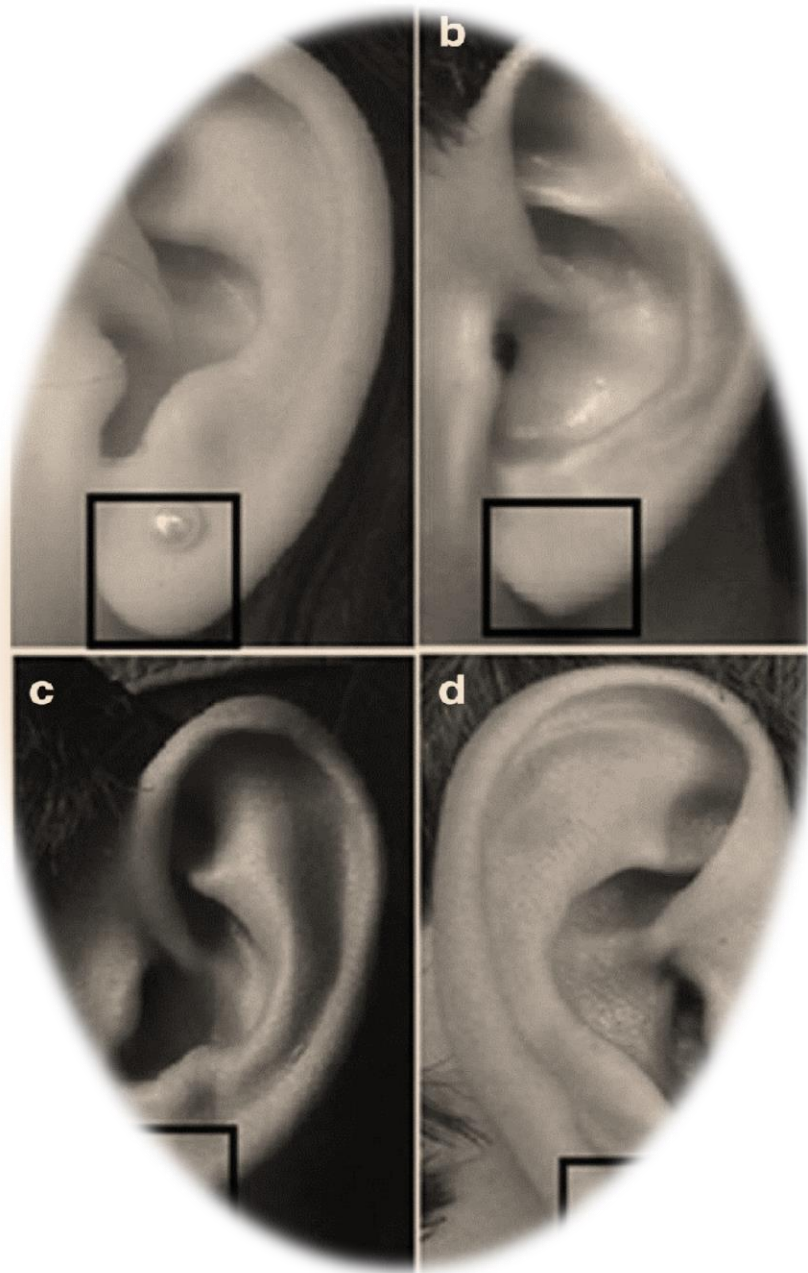


*YOU OF COURSE, WERE INTERESTED IN THE SHAPE
OF THE THREE CUSHING SISTERS' EARS, AND
YOUR OBSERVATION THEY WERE ALL THE SAME
DOES NOT HOLD UP UNDER RESEARCH.*



A STUDY OF THE EARS OF MORE THAN 400
SUBJECTS FROM THREE GENERATIONS FOUND
SIMILARITIES WERE NEVER 100%.





EVEN THE ONE SET OF TWINS IN THE STUDY DID NOT HAVE EXACT-MATCHING EARS, ALTHOUGH THEY HAD MORE SIMILARITIES THAN ANY OTHER SIBLINGS.





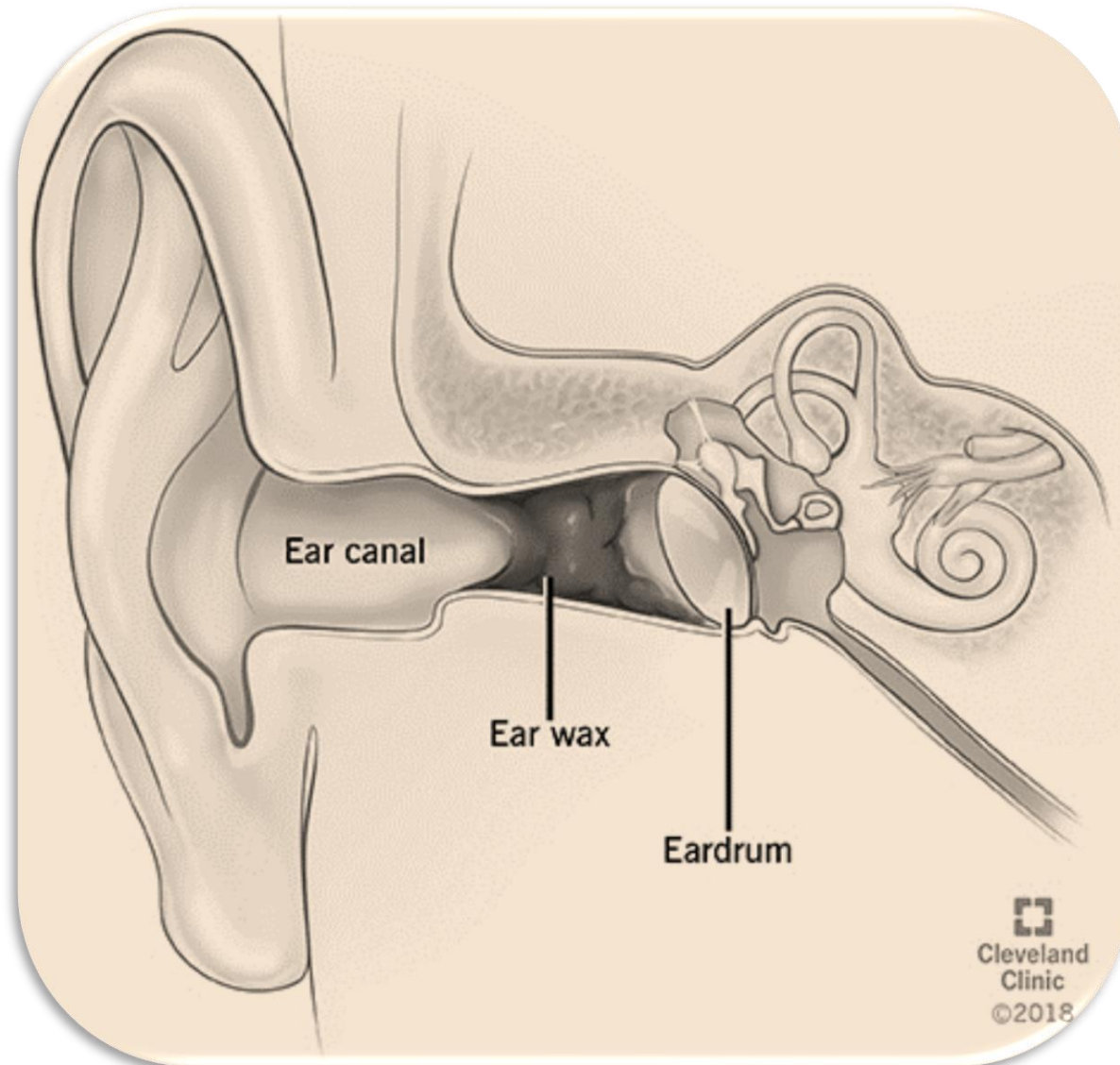
A COMPARISON OF GRANDPARENTS' AND GRANDCHILDREN'S EARS WAS FOUND TO MATCH THE LEAST, AND THE NON-TWIN SIBLINGS HAD MORE SIMILAR TRAITS THAN ANY OTHER PAIRINGS, BUT STILL SHOWED ENOUGH VARIATION TO IDENTIFY A SINGLE INDIVIDUAL.



THE UNIQUENESS OF EAR PRINTS HAS BEEN EQUATED WITH THOSE OF FINGERPRINTS – ONLY CHANGING LESS OVER TIME.



EARS PRODUCE FAT AND WAX SECRETIONS THAT LEAVE BEHIND A PRINT WHEN PRESSED TO A SURFACE, JUST AS OILS AND DIRT LEAVE PRINTS FROM FINGERS.



SUCH IMPRESSIONS, USUALLY FOUND WHERE A PERSON PRESSES HIS OR HER EAR ON A WINDOW OR DOOR TO CHECK FOR SOUNDS, HAVE BEEN USED SINCE THE 1950s TO LINK A SUSPECT TO A CRIME.



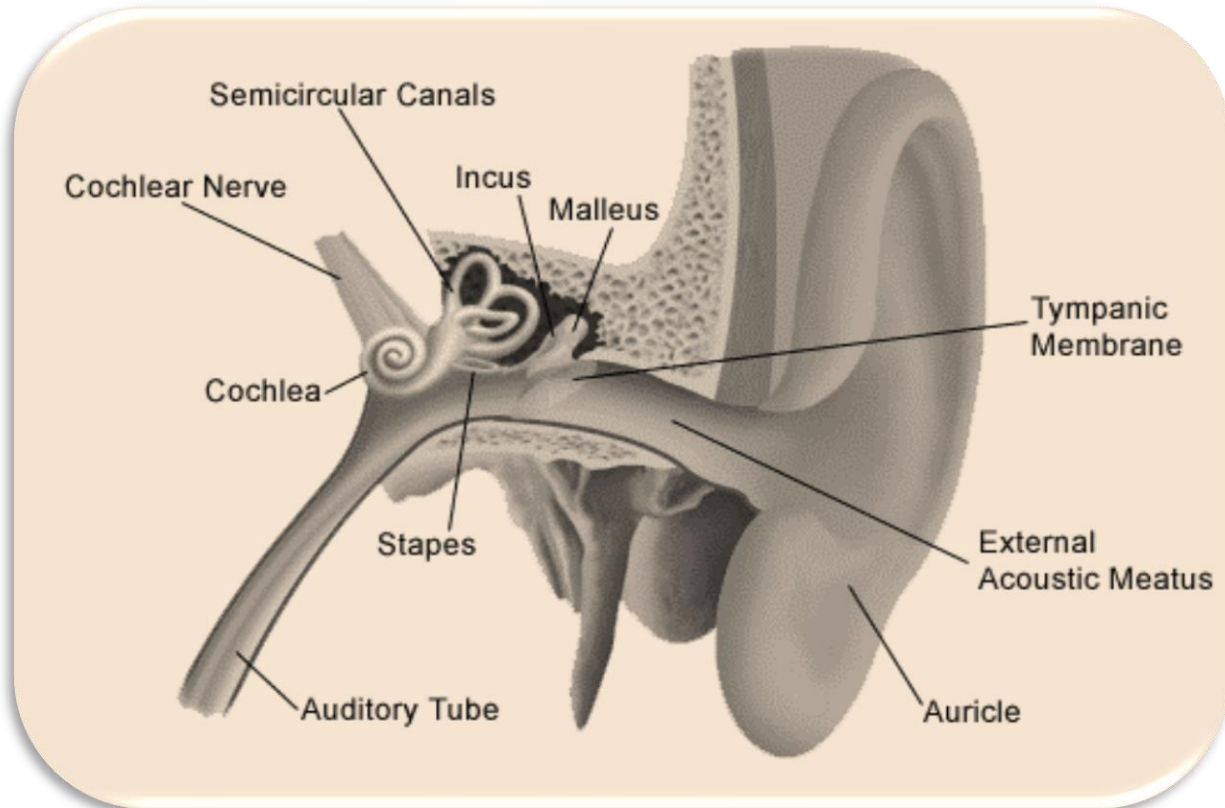
*THE FIRST CASE OF A MURDER CONVICTION USING
EAR PRINTS OCCURRED IN ENGLAND IN 1898.*



EAR INDIVIDUALITY DOES NOT END WITH EXTERNAL STRUCTURE... EACH PERSON'S EAR PROCESSES QUIET SOUNDS DIFFERENTLY.

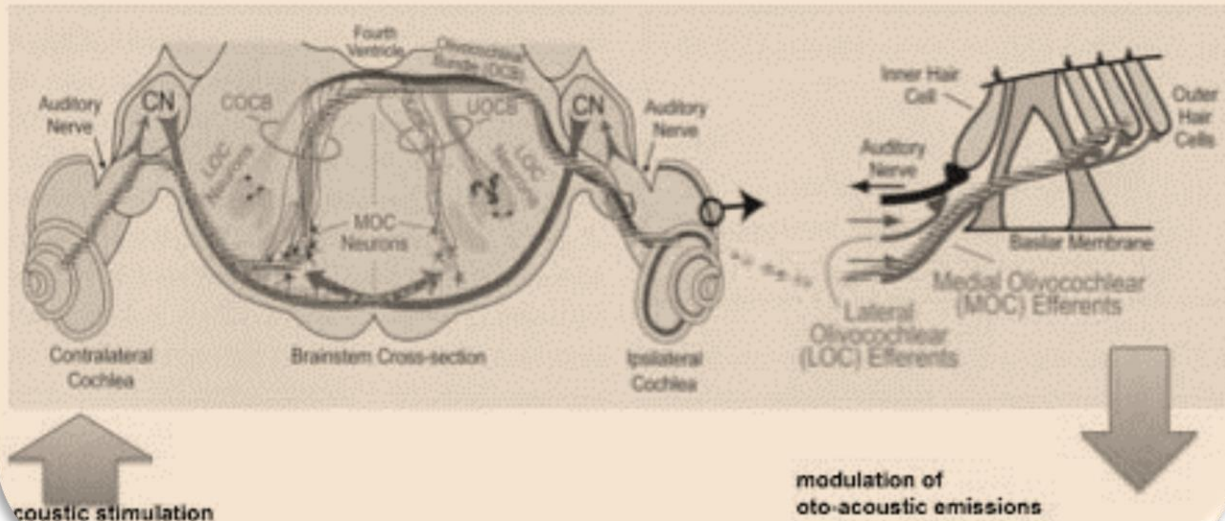


WHILE NOT AUDIBLE TO THE HUMAN EAR, THE MICROSCOPIC CELLS IN THE INNER EAR'S COCHLEA VIBRATE, PRODUCING A NOISE DETECTABLE WITH SENSITIVE MICROPHONES.



THESE 'OCTOACOUSTIC EMISSIONS' ARE UNIQUE TO THE INDIVIDUAL.

Anatomic structures associated with olivo-cochlear reflexes



*NEC HAS ALREADY DEVELOPED A MICROPHONE
THAT CAN IDENTIFY INDIVIDUALS FROM THESE
SOUNDS WITH 99% ACCURACY.*

Orchestrating a brighter world

NEC



MY SCRUTINY OF ONE OF THE SEVERED EARS AND
THAT OF THE ELDEST CUSHING SISTER INDICATED
THE FATE OF THE YOUNGEST.



WHILE THEY MIGHT NOT HAVE BEEN DUPLICATES,
CURRENT RESEARCH SUGGESTS THEY WOULD HAVE
BEEN SIMILAR ENOUGH TO INDICATE A CLOSE
RELATIONSHIP BETWEEN SUSAN CUSHING AND
THE VICTIM.



**ALMOST ONE HUNDRED YEARS WOULD PASS
BEFORE SUCH AN OBSERVATION WAS
SCIENTIFICALLY VERIFIED... YOU HAD, ONCE
AGAIN, ANTICIPATED LATER FORENSIC SCIENCE.**



SO, WE HAVE COMPLETED TOPIC # 083 IN OUR SERIES...

IN TOPIC # 084, WE WILL BE LOOKING AT STOCKS, STOCK MARKETS AND
STOCK-BROKERS IN THE VICTORIAN PERIOD



REFERENCES FOR THIS TOPIC:

- [HTTPS://WWW.EARWELLCENTERS.COM/CONGENITAL-EAR-DEFORMITY-MICROTIA-AND-ANOTIA/](https://www.earwellcenters.com/congenital-ear-deformity-microtia-and-anotia/)
- [HTTPS://WWW.NATURE.COM/ARTICLES/D41586-017-07792-7](https://www.nature.com/articles/d41586-017-07792-7)
- [HTTPS://PATIENT.INFO/DOCTOR/PROMINENT-EARS](https://patient.info/doctor/prominent-ears)
- K. SKARIA ALEXANDER ET AL, "A MORPHOMETRIC STUDY OF THE HUMAN EAR," JOURNAL OF PLASTIC, RECONSTRUCTIVE, AND AESTHETIC SURGERY, 2011: 64
- RUMA PURKAIT, "APPLICATION OF EXTERNAL EAR IN PERSONAL IDENTIFICATION: A SOMATOSCOPIC STUDY IN FAMILIES," ANNALS OF FORENSIC RESEARCH AND ANALYSIS, MAY, 2015.
- NITIN KAUSAL AND PURNIMA KAUSAL: HUMAN EARPRINTS: A REVIEW IN JOURNAL OF BIOMETRICS AND BIOSTATISTICS, 2011, 2:129.
- [HTTPS://HEARINGHEALTHFOUNDATION.ORG/BLOGS/EARS-THE-NEW-FINGERPRINTS](https://hearinghealthfoundation.org/blogs/ears-the-new-fingerprints)
- [HTTPS://WWW.BBC.COM/FUTURE/ARTICLE/20170109-THE-SEVEN-WAYS-YOU-ARE-TOTALLY-UNIQUE](https://www.bbc.com/future/article/20170109-the-seven-ways-you-are-totally-unique)



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"THE LIFE AND TIMES IN VICTORIAN LONDON"

IS CREATED THROUGH THE INGENUITY & HARD WORK OF:

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&
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