Baker Street Elementary

PRESENTS
"THE LIFE AND TIMES IN VICTORIAN LONDON"



Baker Street Elementary

THE LIFE AND TIMES IN VICTORIAN LONDON # 126 - HOLMES AND HIS SET - AUGUST, 2023



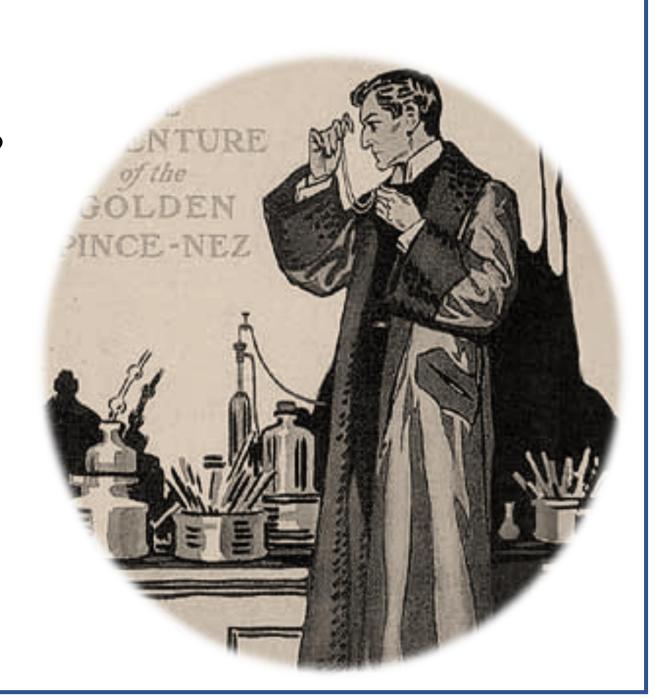
WELCOME TO TOPIC NUMBER # 126... TODAY WE WILL BE LOOKING AT THE ROLE CHEMISTRY PLAYED IN YOUR INVESTIGATIONS...





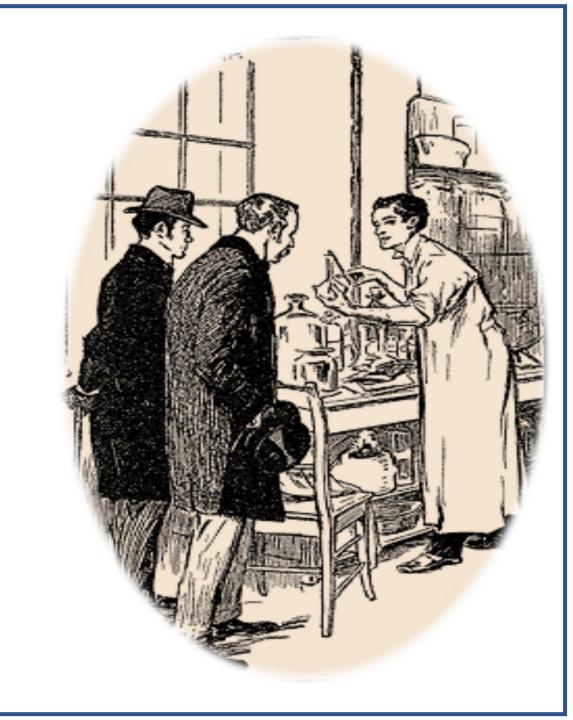
IN OUR FIRST ADVENTURE TOGETHER, I IDENTIFIED YOU AS A 'FIRST-RATE CHEMIST' AND DESCRIBED YOUR CONSTANT EXPERIMENTATION ONCE WE RENTED ROOMS AT 221B.





FROM OUR FIRST MEETING, YOU SHOWED YOUR SKILLS IN CHEMISTRY WHEN YOU ANNOUNCED YOU HAD JUST DEVELOPED A TEST TO DETERMINE THE PRESENCE OF BLOOD.





IN ADDITION, THROUGHOUT THE CANON, YOU RELY ON CHEMICAL ANALYSES NOT ONLY AS A MEANS OF SOLVING A CASE BUT ALSO AS A FORM OF RELAXATION.





YOUR CHEMICAL STUDIES WERE SO WELL KNOWN, THE ROYAL SOCIETY OF CHEMISTRY AWARDED YOU A FELLOWSHIP IN 2002... NOT ALL, HOWEVER, HAVE AS HIGH AN OPINION OF YOUR ABILITIES AS MINE OR THIS ROYAL SOCIETY.





CHEMISTRY REFERS TO CHANGES IN THE NATURE OF SUBSTANCES, AND WAS FIRST STUDIED MORE THAN 4000 YEARS AGO BY THE ANCIENT EGYPTIANS.







MUSLIM SCHOLARS CONTINUED STUDIES OF HOW MATTER CHANGED, CALLING IT <u>AL-KIMIA</u>, WHERE IT RETURNED TO EUROPE AS ALCHEMY, THE SEARCH FOR TRANSFORMING BASER METALS INTO GOLD.





CHEMISTRY BECAME A PROPER SCIENCE IN THE 1700s WITH EXPERIMENTS INVOLVING THE DISCOVERY OF OXYGEN AMONG OTHER ELEMENTS.



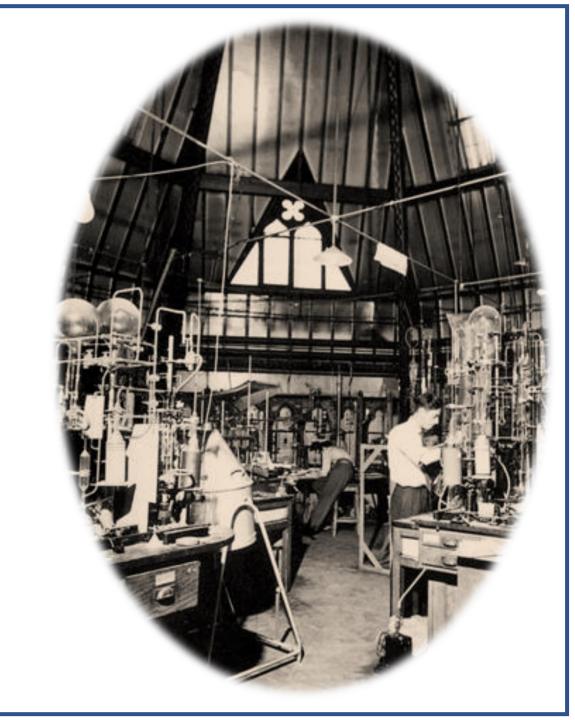
LATER DISCOVERIES SUCH AS THE RADIOACTIVE ELEMENTS BY THE CURRIES MARKED A TURN FROM TRADITIONAL TO MODERN CHEMISTRY.





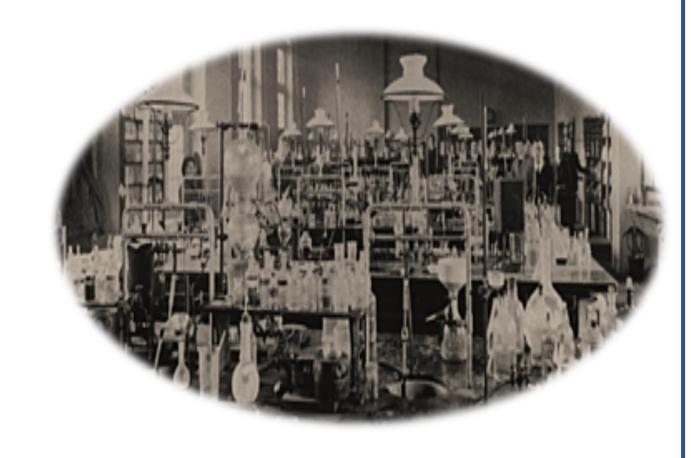
BOTH OXFORD AND CAMBRIDGE'S CURRICULA REFLECTED THE DEVELOPMENT OF SCIENTIFIC CHEMISTRY.





CAMBRIDGE HAS MORE THAN A 300-YEAR HISTORY IN THE DISCIPLINE, WITH ALCHEMY BEING FIRST PRACTICED THERE IN THE SIXTEENTH AND SEVENTEENTH CENTURIES.





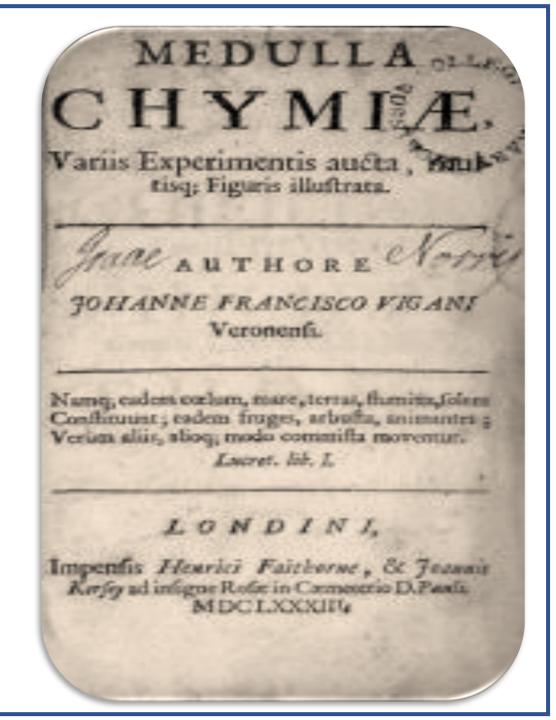
THE SHIFT TO TRADITIONAL CHEMISTRY AT THIS INSTITUTION WAS MARKED BY THE UNIVERSITY NAMING ITALIAN CHEMIST AND PHARMACIST GIOVANNI F. VIGANI AS ITS FIRST PROFESSOR OF CHEMISTRY IN 1702.





VIGANI HAD ALREADY BEEN LECTURING AT CAMBRIDGE FOR 20 YEARS BY THE TIME HE RECEIVED THIS RECOGNITION... HIS LECTURES WERE PRACTICALLY DRIVEN AND FOCUSED PRIMARILY ON THE PREPARATION OF MEDICAL COMPOUNDS.





OXFORD'S INTRODUCTION OF CHEMISTRY BEGAN IN 1682 WITH THE CREATION OF THE ASHMOLEAN MUSEUM.



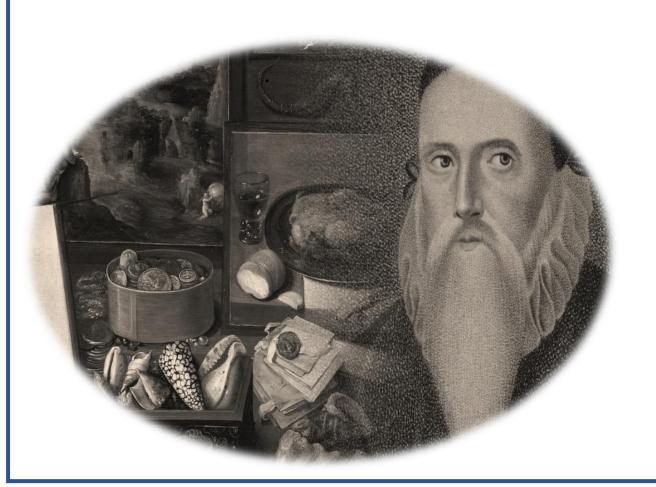


ELIAS ASHMOLE'S BEQUEST INCLUDED THE FIRST LABORATORY BUILT SPECIFICALLY FOR CHEMISTRY BECAUSE OF HIS INTEREST IN ALCHEMY.





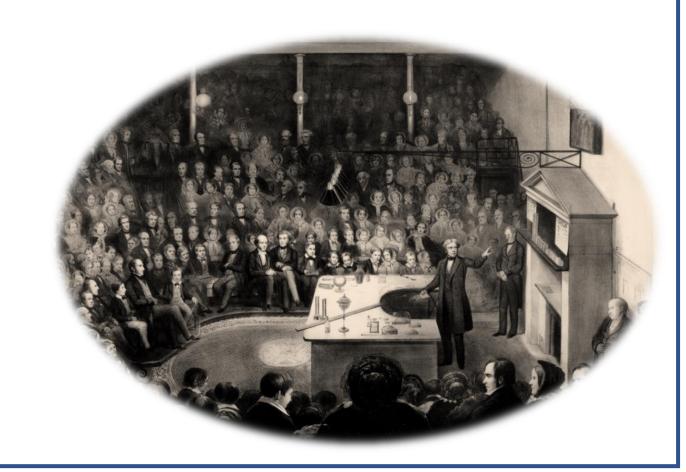
CHEMISTRY, HOWEVER, WOULD HAVE TO WAIT ALMOST TWO HUNDRED YEARS (1860) UNTIL IT WAS RECOGNIZED AS A SEPARATE DISCIPLINE WITH THE CREATION OF A SMALL LABORATORY ATTACHED TO THE MUSEUM OF NATURAL HISTORY.



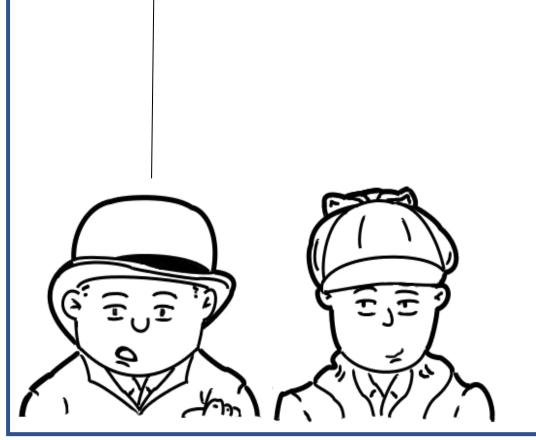


FOR MOST OF THE 19TH CENTURY, LITTLE EXPERIMENTATION OR STUDY OF CHEMISTRY OCCURRED AT THE UNIVERSITIES OUTSIDE THAT TAUGHT TO MEDICAL STUDENTS.





YOUR TRAINING IN CHEMISTRY, THEN, WOULD HAVE BEEN PRIMARILY FOCUSED ON MEDICAL APPLICATIONS, AND NOT SURPRISINGLY, YOU FIRST MEET ME AT THE CHEMISTRY LABORATORY AT ST. BARTHOLOMEW'S HOSPITAL.

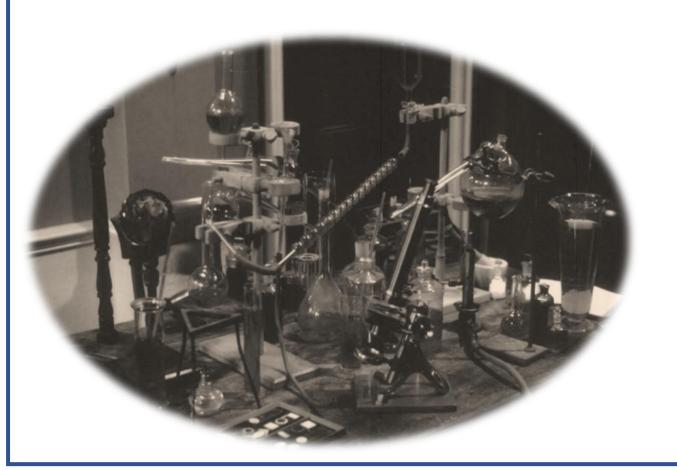




I, OF COURSE, HAD MY OWN CHEMISTRY
EQUIPMENT, WHICH YOU DESCRIBE IN
NUMEROUS ADVENTURES AS SITTING ON AN
ACID-STAINED TABLE.



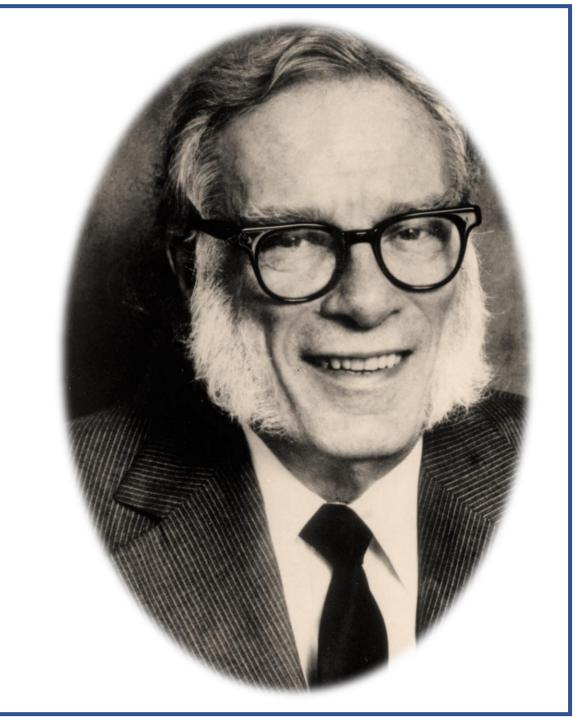
ALSO MENTIONED ALONG THE WAY ARE GLASSWARE—IN PARTICULAR, A RETORT USED IN DISTILLATION—A BUNSEN BURNER, A MICROSCOPE, AND OTHER ITEMS SUCH AS LITMUS PAPER.



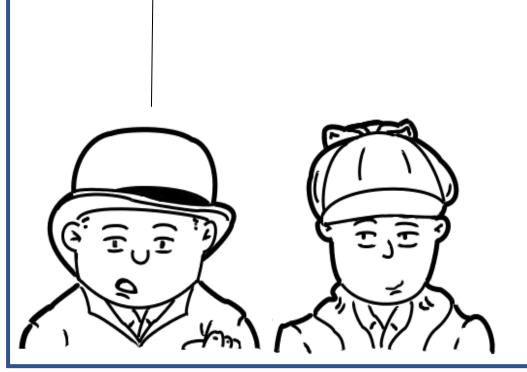


ISAAC ASIMOV DISSECTED SEVERAL OF YOUR CHEMISTRY REFERENCES IN THE CANON AND NOTES THAT THE DESCRIPTIONS OF YOUR EFFORTS IMPLIED A RATHER LIMITED KNOWLEDGE IN THE AREA, AND RATHER 'BLUNDERING.'





YOUR ONE MAJOR INSIGHT INVOLVED THE DEVIL'S FOOT ROOT, WHOSE EFFECTS WHEN GROUND AND BURNED IMITATED THAT OF LSD.





JAMES O'BRIEN'S REVIEW OF ASIMOV'S
ASSESSMENT, AS WELL AS HIS EXAMINATION OF
HOLMES' INTEREST IN CHEMISTRY, QUESTIONS MY
CONCLUSION THAT YOUR EFFORTS WERE
'PROFOUND...' IN THE END, O'BRIEN LABELS THEM
AS 'ECCENTRIC.'





MY REPUTATION AS A DETECTIVE IS BASED IN PART ON MY ABILITY TO APPLY SCIENCE AND DEDUCTIVE REASONING TO SOLVE A CASE.

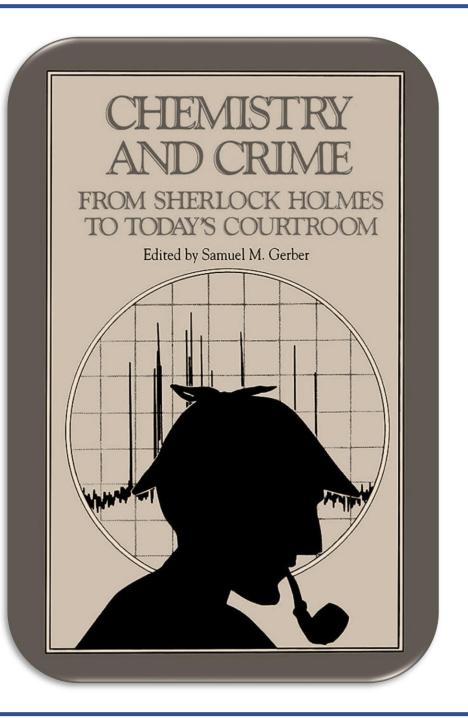




AT THE TIME OF MY INTRODUCTION TO YOU, I WAS ALREADY ON THIS PATH AS I DEVELOPED MY TEST FOR THE PRESENCE OF BLOOD IN A STAIN.







WHILE MY ABILITIES MIGHT NOT HAVE BEEN AS 'PROFOUND' AS YOU SUGGESTED, THE APPLICATION OF SUCH SKILLS STILL PLACED ME ABOVE THOSE DEPENDING ON INSTINCT TO SOLVE A CRIME.



SO, WE HAVE COMPLETED TOPIC # 126 IN OUR SERIES...

IN TOPIC # 126, WE WILL BE LOOKING AT THE DEVELOPMENT AND USE OF THE LONDON UNDERGROUND DURING THE VICTORIAN PERIOD.





ORIGINAL SOURCE MATERIAL FOR FOR THIS TOPIC:

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- HTTPS://WWW.ARVINDGUPTATOYS.COM/ARVINDGUPTA/ASIMOV-CHEMISTRY.PDF
- HTTPS://EN.UNESCO.ORG/COURIER/YANVAR-MART-2011-G/CHEMISTRY-HOW-IT-ALL-STARTED#:~:TEXT=FOUR%20THOUSAND%20YEARS%20AGO%20THE,CHEMICALS%20TO%20TREAT%20EYE%2 ODISEASES
- HTTP://PUBSAPP.ACS.ORG/CEN/COVERSTORY/8032/PRINT/8032CAMBRIDGE.HTML
- WWW.ACADEMIA.EDU/8184648/CHEMISTRY TEACHING AT OXFORD AND CAMBRIDGE CIRCA 1700
- HTTPS://WWW.CHEM.OX.AC.UK/OUR-HISTORY-0#EXPAND-5
- HTTP://PUBSAPP.ACS.ORG/CEN/COVERSTORY/8032/PRINT/8032CAMBRIDGE.HTML
- CHRISTOPHER ZORDAN, "A FELLOW WHO IS WORKING AT THE CHEMICAL LABORATORY," IN DANA RICHARDS (ED) MY SCIENTIFIC METHODS, NEW YORK, BAKER STREET IRREGULARS, 2022
- ISAAC ASIMOV, THE ROVING MIND, NEW YORK: PROMETHEUS BOOKS, 1997
- JAMES O'BRIEN, THE SCIENTIFIC SHERLOCK HOLMES, OXFORD: OXFORD UNIVERSITY PRESS, 2013



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"THE LIFE AND TIMES IN VICTORIAN LONDON"

IS CREATED THROUGH THE INGENUITY & HARD WORK OF:

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