



# ON THE SHOULDERS OF GIANTS: THE DIGITAL EXPLORATION OF NEWTON'S CAREER AT THE ROYAL MINT

Professor Robert Iliffe, Professor of the History of Science, University of Oxford

Webinar

Friday, 21 May 2021, 14:00 BST

# A Word From Today's Chairman



**Professor Michael Mainelli**

Executive Chairman

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# Today's Agenda



- 14:00 – 14:05 Chairman's Introduction
- 14:05 – 14:25 Keynote Presentation – Professor Robert Iliffe
- 14:25 – 14:45 Question & Answer

# Today's Speaker



**Professor Robert Iliffe**

Professor of the History of Science

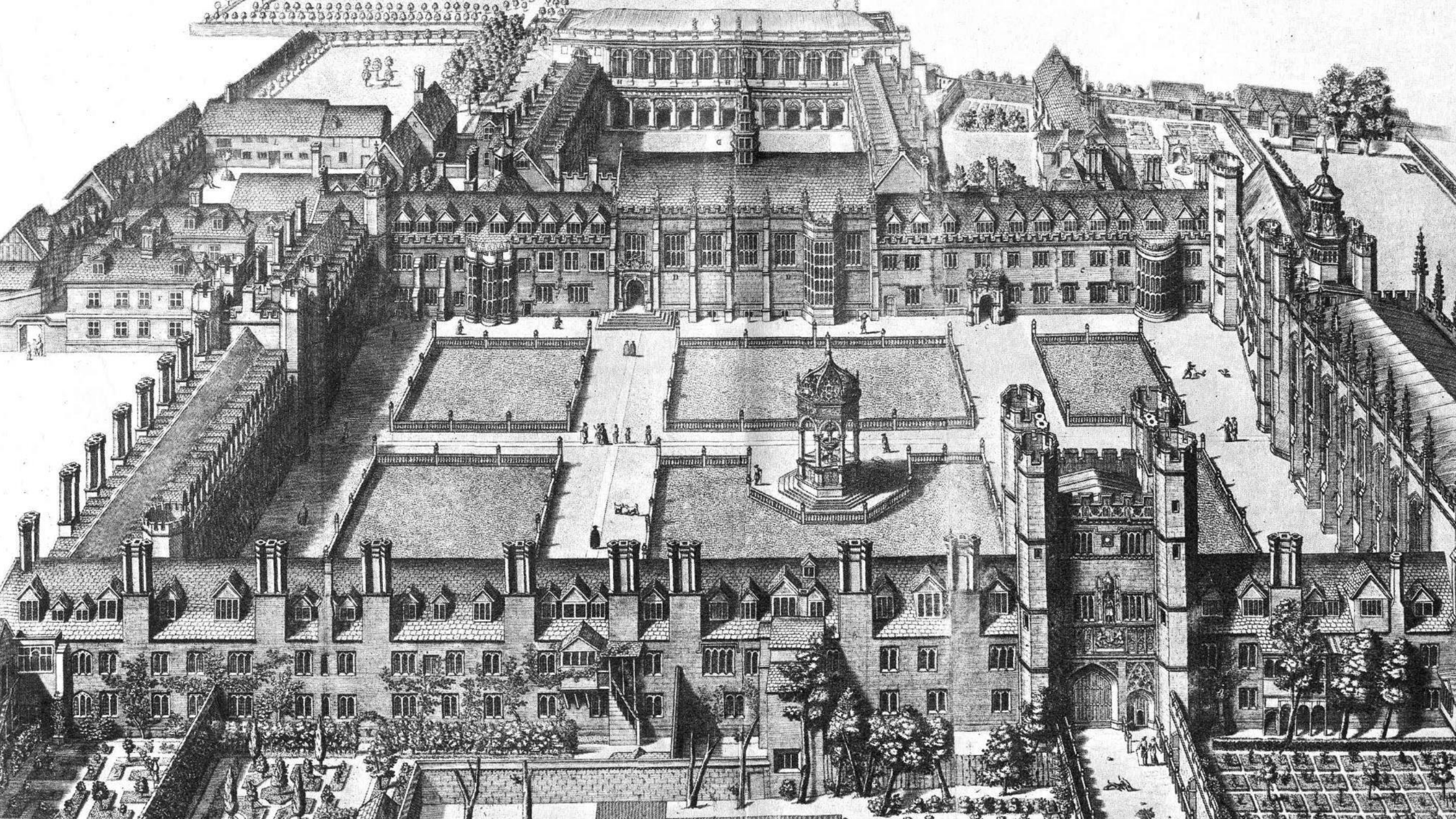
University of Oxford

# 'On the shoulders of giants': the digital exploration of Newton's career at the Mint

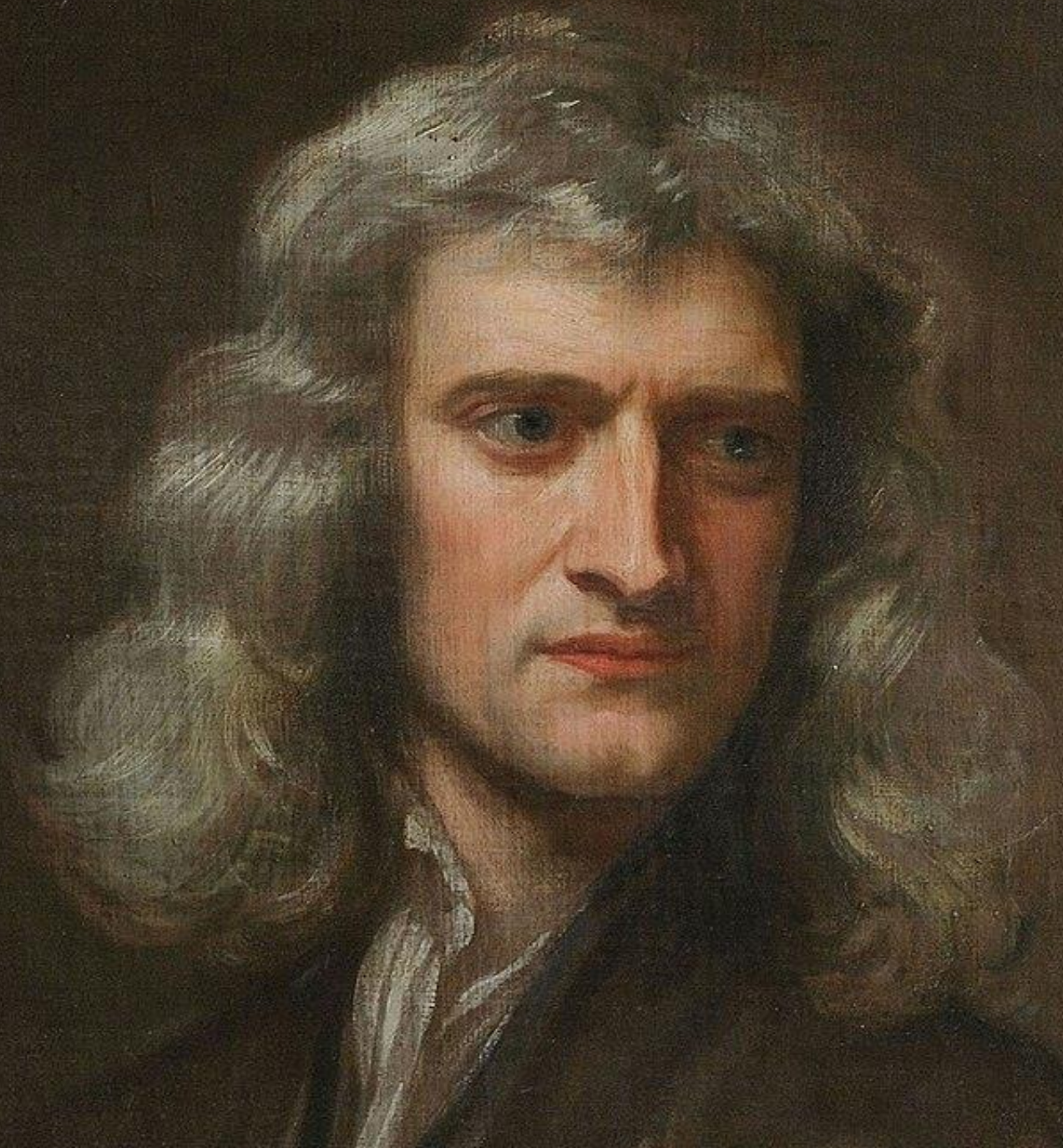
Rob Iliffe

May 2021









# The Financial Revolution

- Following the Glorious Revolution, war vs. France (1689-97) placed strain on capacity of government to pay soldiers fighting in Flanders and elsewhere.
- Use of Bills of Exchange increased, and various banking innovations helped funnel money to Parliament for war effort, creating a 'fiscal-military state'.
- Projecting flourished – patents; Joint-stock companies; Tontines, Annuities and new insurance schemes (Lloyds) and local/national lotteries (esp. 'Million Adventure' Lottery of 1694)
- Numerous proposals for a bank to lend to government, including creation of Bank of England in 1694
- Malt Lottery 1697 (paid for by excise duties from malt).





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THE LOTTERY TICKET—OR THE SUNSHINE OF HOPE.

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No. 69 St. Paul's Church Yard, LONDON.

THE TICKET A BLANK—OR THE CLOUDS OF DESPAIR.

Published as the Act directs by J. G. S. P.

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15

# Currency Crisis

- Following introduction of new technology in early 1660s, only a limited amount of milled coin had been introduced,
- Most coin circulating in 1680s being 'hammered';
- Newton's assistant Hopton Haynes noted that silver coin paid as tax was losing weight from about 1686, and 'clipping and coining' began to accelerate from that date.
- War temporarily stalled counterfeiting but it took off again in 1693, causing price of guinea to rise to 30s -
- Haemorrhaging of silver to Europe and Far East, along with clipping and coining, created a serious silver currency crisis by mid-1695.

# The Great Recoinage

- Along with Wren, Locke and others, Newton was asked for his opinion on what to do about shortage of specie in Autumn 1695;
- Locke's solution, i.e. not devaluing but recoinng at old silver content, was chosen as means of guaranteeing integrity of currency.
- Newton invited by Chancellor of Exchequer, Charles Montagu, to be Warden of the Mint in April 1696;
- Montagu promised Newton a well-paid sinecure but the religious moralist could never take on such a position without linking his own integrity to that of the institution.

# Reorganising the Mint

- As Warden Newton was the representative of the Crown and responsible for legal and criminal work.
- He arrived at the Mint intent on maintaining its integrity: by
  - (a) ensuring the quality of gold and silver coin and
  - (b) prosecuting those who sought to debase it.
- As elsewhere, he quickly took detailed notes on history and operations of Mint and its workers, 'analyzing' the actions and work-rate ('diligence') of key workers to ascertain when quality/productivity had fallen.
- Set up proper accounting systems for all mints involved in the Recoinage.

## Of the making the Moneys

Sixteen ounces Troy of sixpenny Blanks were blancht in 6 minutes & lost of their weight in blanching the first experim<sup>t</sup> 8<sup>gr</sup> the next 10<sup>gr</sup> y<sup>e</sup> next 7<sup>gr</sup> the next 9<sup>gr</sup> \& at a second blanching for 7 minutes of time one grain more/ at a middle reconning \they lost at one blanching/ 8 $\frac{1}{2}$  gr. Whence a pound Troy loses about 6 $\frac{1}{3}$  gr. & a pound Troy of crown blancks 3<sup>gr</sup> or crown blancks 4<sup>gr</sup> & of shilling blancks 5<sup>gr</sup>. By experim<sup>t</sup> I found that a pound Troy of  $\frac{1}{2}$  crown blancks lost 3 $\frac{1}{2}$  gr.

A sixpenny barr weighing 16 ounces Troy lost in Nealing three times, got 3 grains in weight y<sup>e</sup> first time, lost  $\frac{1}{2}$  a grain y<sup>e</sup> second time & got 1 $\frac{1}{2}$  grain the third time, that is in all the three nealings it grew heavier by 4 grains. A shilling barr of 15 ounces Troy in one nealing grew heavier by 1 $\frac{1}{2}$  grain. So that Nealing increases y<sup>e</sup> weight of a \shilling/ barr of a pound weight Troy by about 1<sup>gr</sup> or 1 $\frac{1}{4}$ <sup>gr</sup> & of a sixpenny barr by about 1 $\frac{1}{2}$  or 2<sup>gr</sup>. And Nealing & blanching together decrease the weight of a pound weight of sixpenny blancks by about 5<sup>gr</sup> of shilling blancks by 4<sup>gr</sup>, of  $\frac{1}{2}$  crown blancks 3<sup>gr</sup> of crown blancks 2 $\frac{1}{3}$  gr. And if the sixpenny, tweldepenny, half crown & crown blancks be taken in common in y<sup>e</sup> proportion of 1, 4, 3, 2 the nealing & blanching together decrease the weight of a lwt by  $\frac{5 + 16 + 9 + 4 \frac{2}{3}}{10} \frac{34 \frac{2}{3}}{10}$  or 3 $\frac{1}{2}$ <sup>gr</sup>. If the blancks be not well nealed they will not blanch well.

The Moneyers melt their limel per se without any mixture to make it run & in melting it grows better 2<sup>dwt</sup> 3<sup>dwt</sup> or 4<sup>dwt</sup> & loses 1, 2 or 3 lwt of its weight The limel is not above the  $\frac{1}{80}$ <sup>th</sup> part of y<sup>e</sup> money. And if the loss in the limel be  $\frac{1}{80}$ <sup>th</sup> part thereof by scattering &  $\frac{1}{80}$ <sup>th</sup> by melting, the wast by the limel will be  $\frac{1}{4000}$ <sup>th</sup> of the money that is  $\frac{3}{16}$  of a penny per lwt

<11v>

There is also a wast in the milling by the dripping off of sand \with some particles/ which of silver & in the nealing by some blanks falling out of \the pan upon/ the hearth & lying there till they be half consumed by {the} \fire and in shreds/ {illeg} of silver scattered up & down the rooms & lost in y<sup>e</sup> {dus}t or by sticking to the workmens shoes: all w<sup>ch</sup> cannot amount  $\frac{1}{4}$  of a penny per lwt. So that the whole wast in the making of the moneys by the Moneyers comes not to 1<sup>d</sup> per lwt.

Two Mills with 4 Millers, 12 horses \two Horskeepers/, 3 c|C|utters, 2 Flatters, {illeg} 8| sizers One Nealer, o{fn} thre {sic} Blanchers, two Markers, two Presses with two feeders & fourteen labourers the {illeg} to pull at them & some Moneyers to weigh the silver & inspect the several parts of the work can coyn after the rate of 3000<sup>lb</sup> a thousand weight or 3000 of money per diem And if for the horses & men \labourers/ one with another be allowed after y<sup>e</sup> rates of 22<sup>d</sup> per diem it comes to {illeg} about 6<sup>lb</sup> per diem & to Moneyers after the rate {of} 10<sup>s</sup> per diem it comes to about 10<sup>lb</sup> per diem it comes to about 3<sup>lb</sup> per diem, that is {illeg} three farthings per diem lwt.

So that the whole charge of coynage besides the allowance to the moneyers for their hazzard & pains comes only to about 1<sup>d</sup> $\frac{1}{8}$ .



N. E. PARTS The Liberties



# THE TOWER

The Line of the Liberties

- A The Lodging Room
- B The Great Hall
- C The Kitchen
- D The Chapel
- E The Great Tower
- F The Great Tower
- G The Great Tower
- H The Great Tower
- I The Great Tower
- L The Great Tower
- M The Great Tower
- N The Great Tower
- O The Great Tower
- P The Great Tower
- Q The Great Tower
- R The Great Tower
- S The Great Tower
- T The Great Tower
- V The Great Tower
- W The Great Tower
- X The Great Tower
- Y The Great Tower
- Z The Great Tower
- 1 The Great Tower
- 2 The Great Tower
- 3 The Great Tower
- 4 The Great Tower
- 5 The Great Tower

# The Table

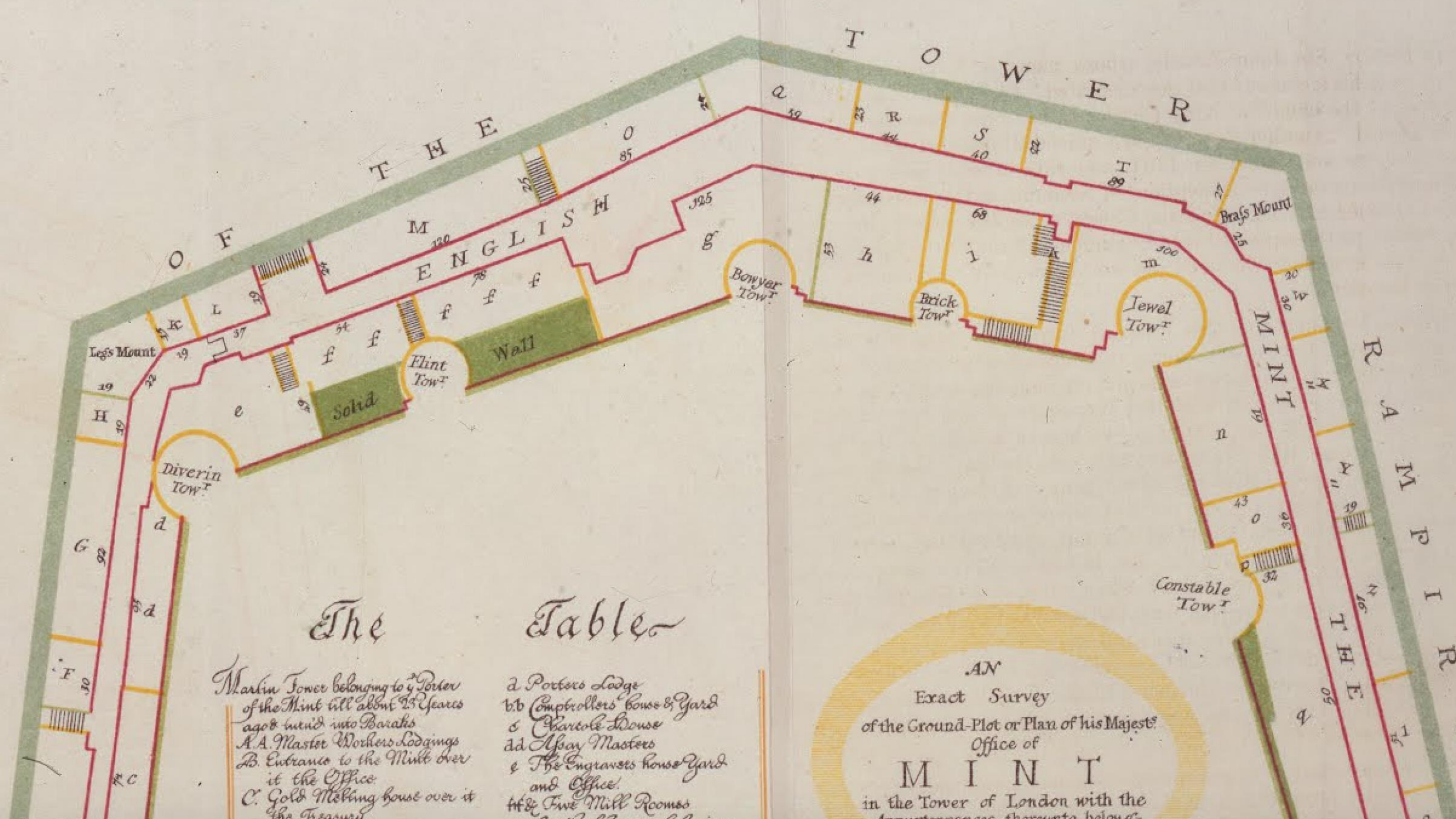
AN  
 Exact Survey  
 of the Ground-Plot or Plan of his Majesties  
 Office of  
**M I N T**  
 in the Tower of London with the  
 Appurtennances thereunto belong-  
 ing as now in Possession & use  
 of the said Office.



Martin Tower belonging to y<sup>e</sup> Porter  
 of the Mint till about 25 Years  
 agoe & turned into Baraks  
 A.A. Master Workers Lodgings  
 B. Entrance to the Mill over  
 it the Office.  
 C. Gold Melting house over it  
 the Treasury  
 D. Assay Office  
 E. Silver Melting house over  
 part of it the Surveyor of y<sup>e</sup>  
 Melting house.  
 F. The Harting press house.  
 G. Gold and Silver press house  
 H. Baraks formerly y<sup>e</sup> Assay  
 Masters house turned into Baraks  
 K. Clerk of y<sup>e</sup> Ordinance formerly  
 part of y<sup>e</sup> Assay Masters  
 L. Deputy Comptrollers house  
 M. Moneys Hall & Lodgings  
 O. Smith of y<sup>e</sup> Ordinance  
 formerly belonging to y<sup>e</sup> Smith  
 of y<sup>e</sup> Mint to y<sup>e</sup> Ordinance  
 Q. The Kings Clerks house.  
 R. Meliers house  
 S. Deputy Wardens house.  
 T. Wardens house  
 W. Weigher & Tellers house  
 X. Provost of y<sup>e</sup> Monies house.  
 Y. Comptrollers Stables  
 Z. Engineers for the Monies  
 1. Engineers house  
 2. Refining house.  
 3. Mill Rooms lately Baraks  
 4. Clerk of y<sup>e</sup> Ordinance formerly  
 5. Three Wardens houses formerly  
 6. Clerk of y<sup>e</sup> Ordinance formerly  
 7. Butlers house.

a Porters Lodge  
 b.b Comptrollers house & Yard  
 c Charcole house  
 dd Assay Masters  
 e The Engravers house Yard  
 and Office.  
 ff & Five Mill Rooms  
 g Smiths Shop now belonging  
 to y<sup>e</sup> Ordinance  
 h Moneys Stables formerly  
 i. An Outhouse belonging to  
 y<sup>e</sup> Warden  
 K Bally port Staires  
 M. Wardens Garden  
 N. Comptrollers Clerks house &  
 & Yard.  
 O. Scotland Yard Storehouse  
 formerly  
 P. A Bally Port Staires  
 q. Comptrollers Garden at  
 present a Stable & Planting  
 Room.  
 rr. & Mill Rooms lately  
 Baraks  
 S. Warehouse to y<sup>e</sup> Clerks of  
 the Ordinance.





# The Table

Martin Tower belonging to y<sup>e</sup> Porter  
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AN  
 Exact Survey  
 of the Ground-Plot or Plan of his Majesty's  
 Office of  
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 Appurtenances thereunto belong-

# Prosecuting clippers and coiners

- Newton soon set up system for identifying and catching numerous individuals and networks implicated in counterfeiting –
- Took keen interest in using allies and spouses as informants, often paying latter as ‘witnesses’ to travel to various inns (across the country), and also to dress respectably when giving testimony.
- Major triumph was catching leading criminals of the day, inc. arch-counterfeiter William Chaloner (hanged at Tyburn in March 1699).
- Newton designed countermeasures to protect security of secret Mint tools and processes, drafting often draconian legislation against clippers and coiners.

She saith y<sup>t</sup>. abo<sup>t</sup>. Iune or Iuly last she had of William Chaloner now prisoner in Newgate severall parcells of Counterfeit mill'd Shills<sup>s</sup> which seemed to be made of pewter viz<sup>t</sup>. at one time 12<sup>s</sup>. at another time 2<sup>s</sup>. at another time 5<sup>s</sup> and at other times other su<sup>m</sup>s ammounting in all to about 20 or 30 such Shills<sup>s</sup>. and that he told her that he made them himself and that before he made them he told the Inform<sup>t</sup>. that he was to make an 100<sup>lb</sup> in Dutch money for a Merchant and for y<sup>t</sup>. purpose he borowed a room of the Inform<sup>t</sup>. to work in and desired the Inform<sup>t</sup>. to get some Charcoale for him and accordingly the Inform<sup>t</sup>. took in half a bushell of Charcoale for him and he made a mould of a certain past dryed and hardened like potters Ware to cast <57r> a new sort of Dutch money in and the Inform<sup>t</sup>. saw the said mould in the said room in Chaloner's custody (who was then in the room) and saw him cast a piece of Dutch money in the said mould and finish that and others which he had cast before and the Depon<sup>t</sup>. received two of them from him and have them to a Gentleman to shew them to the Merch<sup>t</sup>. for a specimen And the said Chaloner y<sup>n</sup> told the Inform<sup>t</sup>. that he intended to make {smy} another mould for shills<sup>s</sup>. and abo<sup>t</sup>. a week after gave the Inform<sup>t</sup>. y<sup>e</sup> Shills<sup>s</sup> above menconed or some of them and said that they were dangerous or else he could make them as well as they were in the Tower

And the Depon<sup>t</sup>. saith further that the said Chaloner abo<sup>t</sup>. the same time began to grave the plate for mault Tickets and the Depon<sup>t</sup> gave a shilling to buy a piece of leather to make a sand bagg and when he had scratcht the plate with flourishes and lett<sup>rs</sup>. he left it in the Depon<sup>ts</sup>. custody for 3 or 4 daies and then workt upon it againe and made the letters and flourishes smooth and gave it again to the Depon<sup>t</sup>. to keep for him and the lines lookt black as if some papers had been printed off and after the Depon<sup>t</sup>. had kept the plate 3 or 4 daies she removed to another Lodging and deliver<sup>d</sup>. the said Plate to the said Chaloner

The Deponent saith further that for the 12<sup>s</sup>. above menconed she gave the said Chaloner 8<sup>s</sup>. of good money And that between 7 and 8 years ago she had two or 3 Counterfeit French pistolls of the said William Chaloner to put off and gave him 14<sup>s</sup>. a piece for tham and abo<sup>t</sup>. 6 or 7 years ago she had severall parcells of Counterfeit Gineas {sic} of the said William Chandler and gave him for them sometimes 12<sup>s</sup>. a piece sometimes less they being not so well done as the pistolls and that she hath heard the said Chaloner speak of his making the said Gineas {sic} and said that he made them at his brother Io Gavener's house and that the said Chaloner once left in the Deponents custody the Head Ginea {sic} Dye with which he coyned the Gineas {sic} and Chaloner commending the Dye said said {sic} that it was worth 500<sup>lb</sup>, and being askt who graved it said that Taylor the Engraver had in hand but could not do it effectually and so he (Chaloner) was fain to finish it himself Afterwards the said Chaloner calling for the said Dye or stamp said y<sup>t</sup> he was to let one Nicholas Salber have some Gineas {sic} to carry down into the Countrey and the Depon<sup>t</sup>. saith further that Mary Ball her maid servant saw the said Challoner the summ<sup>m</sup> give her his Deponent two of the pewter shillings above menconed + Soon after the Deponent gave one of them to said Maid servant to charge And the Depon<sup>t</sup>. believes that the said Mary Ball hath had of her 8 or 9 of those shillings to put off And the Depon<sup>t</sup>. saith further that she hath reced of the said Chaloner severall parcells of Counterfeit to put off and continued to receive such monies off him till the May before the hamered monies began to be cu<sup>l</sup>lled in y<sup>t</sup> is bill last May was 2 {yeres}

# Master of the Mint

- On the death of the great projector Thomas Neale, Newton was made Master of the Mint 25 Dec. 1699,
- with John Francis Fauquier as deputy
- Master was responsible for all Mint expenditure, checked by Comptroller/s who had separate account
- Master contracted with Crown for gold; Indenture gave him £6s.6d for every pound troy of gold issued and £1s.4<sup>1</sup>/<sub>2</sub>d for every pound troy of silver.
- Newton, who grew rich in the rare periods where gold coining was extensive, did not entirely give up his prosecutorial work but threw himself into issue of gold/silver ratio –



# Gold/Silver ratios

- Newton spent much, and probably most of 1701-2 (during which time he sat as an MP for a second time) on responding to Treasury request to examine gold/silver ratio.
- In January 1701 he warned that silver coin was being melted for export to areas where it was worth far more relative to gold (effectively neutering the success of the Great Recoinage);
- September 1701 he requested standard 21s.6d value of the guinea be reduced by between 6 and 12d (basis of 1717 recommendation).
- Produced vast study of value of European and American coins, using assays and analysis of exchange rates



# Newton - designer

- Newton steeped in classical learning – basis of his work on chronology.
- Also interested in numismatics – owned and used Evelyn's *Numismata* of 1697, which saw coins and medals as legible and referential.
- Heavily involved in designing medals at start of Anne's reign – and with the historical and political significance of the representation; Anne herself was highly concerned with the designs.
- Worked closely with chief engraver John Croker – 300 gold Coronation medals (representing Anne as Pallas Athene – goddess of wisdom and war) given to Lords, and others were distributed to Commons later.
- Two faces of 'giant' those of Louis XIV and the Pretender.
- Newton's role curtailed after 1704 medal commemorating Marlborough.







# Trials of the Pyx

- Every few years, the Master's integrity in coin production was tested by having gold/silver coins that had been placed in a box (the 'Pyx'), weighed and then assayed for fineness and compared with a plate constructed by the Goldsmith's Company.
- A certain amount of variation from the prescribed values for silver and gold was termed the Mater's 'remedy'.
- Newton resisted efforts by Goldsmiths to hold trial in secret, emphasizing later that he was not technically on trial,
- and that the Goldsmiths had no authority over the process.

# The 1710 Trial

- Problem at 1710 Trial of the Pyx shows Newton at his most intense –
- Issue arose due to 1707 plate made by John Cartlich in connection with amalgamation of the English and Scottish Mints.
- 1710 Jury found that with respect to the 1707 Trial plate, the Pyx gold coins were defective by about 1 part per 1000 –
- Newton and others were apparently so vociferous in their complaints that they were ejected from the building.
- In response to these events, Newton used his experience to perform a number of assays on his own, claiming to prove that the 1707 plate was too fine by nearly half a grain.



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2

This Standard comixed of XXII Carretts  
of Fine Gold and II Carretts of Alloy  
in the Pound w<sup>t</sup> Troy of Great -  
Brittain made the 25<sup>th</sup> of June.

1707.



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# Newton on accuracy

- In a memo. that exists in 10 drafts Newton argued that Refiners, who did not work with as much ‘curiosity and eagerness’ as the assayers, found it almost impossible to refine gold to 24 carats, though this ought to have been their standard.
- For this reason, goldsmiths ‘generally’ believed that gold could not be made above 24 carats fine but he claimed that it could be done by more vigorous ‘washing’ of the gold with Aqua Fortis (nitric acid), or (as ‘Chymists’ did), by using antimony sulphide –
- Condemned Goldsmith’s Co. for never providing details about their practice, or showing that their 1707 plate had received royal warrant.





Whol Ride

Whol Ride  
Whol Ride  
Whol Ride

Whol Ride  
Whol Ride  
Whol Ride

# Conclusion

- Detailed analysis of his work at the Mint, made possible by Mint Project, shows that he brought skills and attitudes to his task from many areas of his personal and intellectual lives;
- Newton linked his own moral compass to his work as Warden and Master of the Mint – this fed into all aspects of his career:
- Reorganising the Mint to increase efficiency
- Prosecuting clippers and coiners
- Improving the ‘exactness’ of the coinage, even with personal assays
- Scrutinising the gold/silver ratio

# Digital Newton

- Mint Papers Project funded by David and Claudia Harding Foundation
- Has transcribed all of Newton's Mint Papers at The National Archives, along with other relevant letters and papers from Treasury papers
- To go 'live' in October 2021, has additional features such as introductions, commentaries, timelines and representations of networked relations between counterfeiters,
- - embedded in a digital map of London (John Roque's 1746).
- All part of much larger Open Access Newton Project, (possibly) to be completed in 2027 ----

<a href="#">MINT00843</a>	Newton, Isaac	Order of the Commons Committee on the Miscarriages of the Mint (forwarded to Newton by the Committee's chairman, Arnold) for [William] Chaloner [Challoner] to demonstrate before them his method of making guineas	15 February 1696 [= 1697]	MINT 19/1/506, National Archives, Kew, Richmond, Surrey, UK
<a href="#">MINT01339</a>	Negus, Francis	John Peers: The Information of John Peers 18 May 1697	c. 18 May 1697	MINT 15/17/86, National Archives, Kew, Richmond, Surrey, UK
<a href="#">MINT01388</a>	Peers, John	John Peers's Letter to Richard Morris, 24 August 1697	24 August 1697	MINT 15/17/136, National Archives, Kew, Richmond, Surrey, UK
<a href="#">MINT00845</a>	Newton, Isaac	Documents relating to the Chaloner case	Late 1697 and early 1698	MINT 19/1/497-8, National Archives, Kew, Richmond, Surrey, UK
<a href="#">MINT00847</a>	Newton, Isaac	Holograph summary of the submissions put to a committee examining Chaloner's case	1698	MINT 19/1/503, National Archives, Kew, Richmond, Surrey, UK
<a href="#">MINT00917</a>	Chaloner, William	William Chaloner's Letters to the Warden of the Mint, to Justice Railton, to Isaac Newton, and to Justice Railton	20-24 Jan. 1698/9	MINT 15/17/133, National Archives, Kew, Richmond, Surrey, UK
<a href="#">MINT00918</a>	Chaloner, William	William Chaloner's Letter to Isaac Newton	early March 1698/9	MINT 15/17/205, National Archives, Kew, Richmond, Surrey, UK
<a href="#">MINT01284</a>	Newton, Isaac	Edward Ivy/Jones: The Examination of Edward Ivy alias Jones late of London 17 May 1698	17 May 1698	MINT 15/17/31, National Archives, Kew, Richmond, Surrey, UK

SEPTEMBER - NOVEMBER 1697

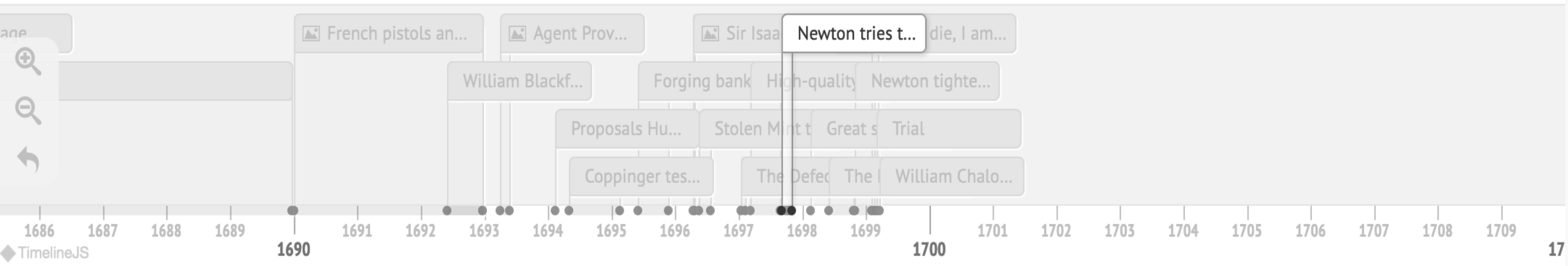
# NEWTON TRIES TO PROSECUTE CHALONER

Chaloner and, his associate, Price, are arrested on September 4. Newton presents the House Committee with two depositions against Chaloner. His main witness is Thomas Holloway, Chaloner's chief confederate. In October, the Committee decides to prosecute Chaloner. Behind the scenes, Chaloner plots Holloway's escape to Scotland. All other witnesses retract their testimony and Chaloner is released.

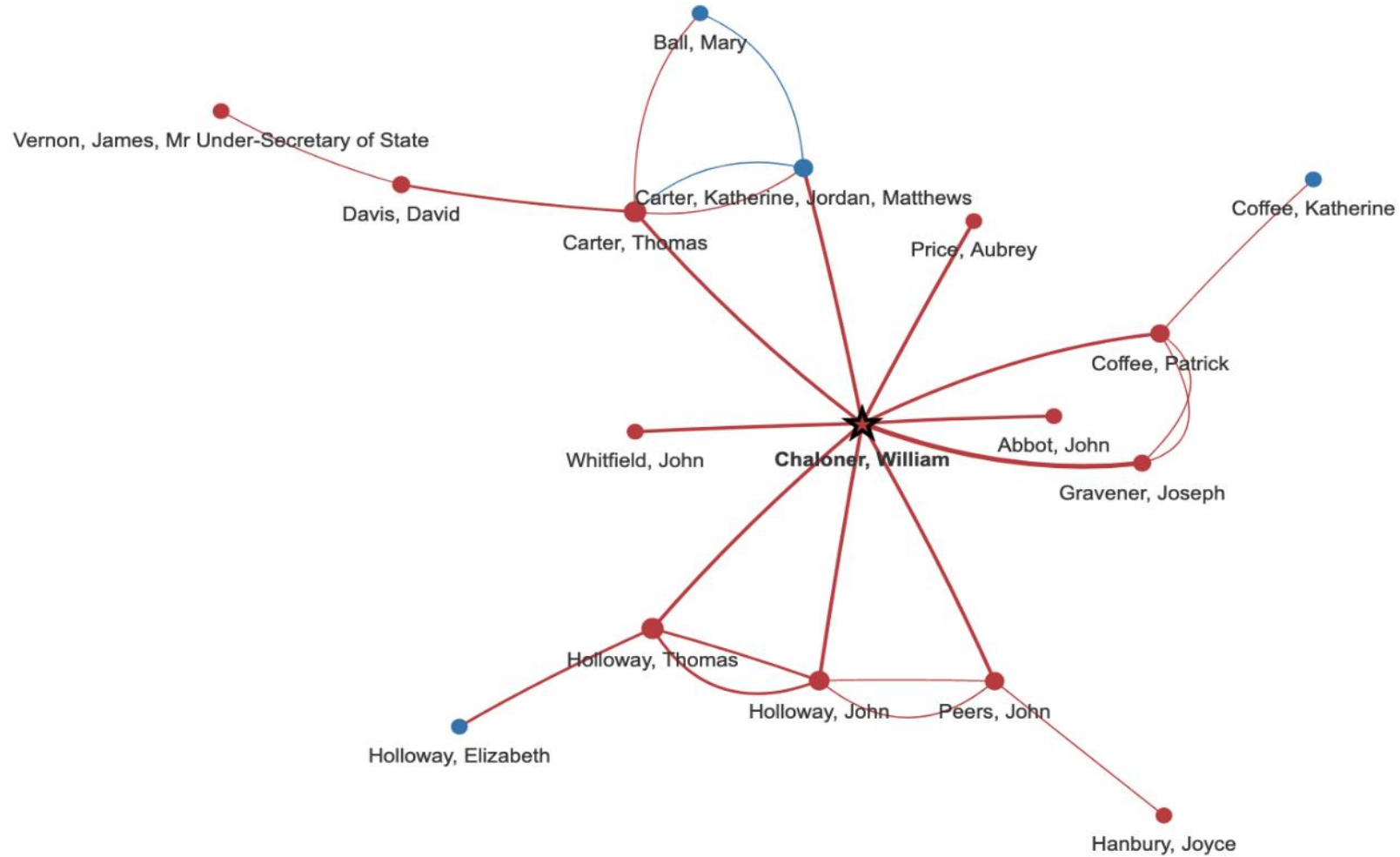
GREAT SUFFERING  
AND RUINED  
CONDITION:  
CHALONER  
ATTACKS NEWTON



HIGH-QUALITY  
SHILLINGS MADE IN  
EGHAM



Double click on node to go to that person's page.



### Filter network

- Accomplices
- Family/friends
- Household
- Legal/commercial

No matter how deep

Apply filters





6

TOWER HILL

LITTLE TOWER HILL

TOWER

Wharf

RIVER

STREET

FEEDER STREET

CAMBERN

KING HERRYS YARD

BEYOND CROSS

SMITHFIELD

PAS

Coopers Yard

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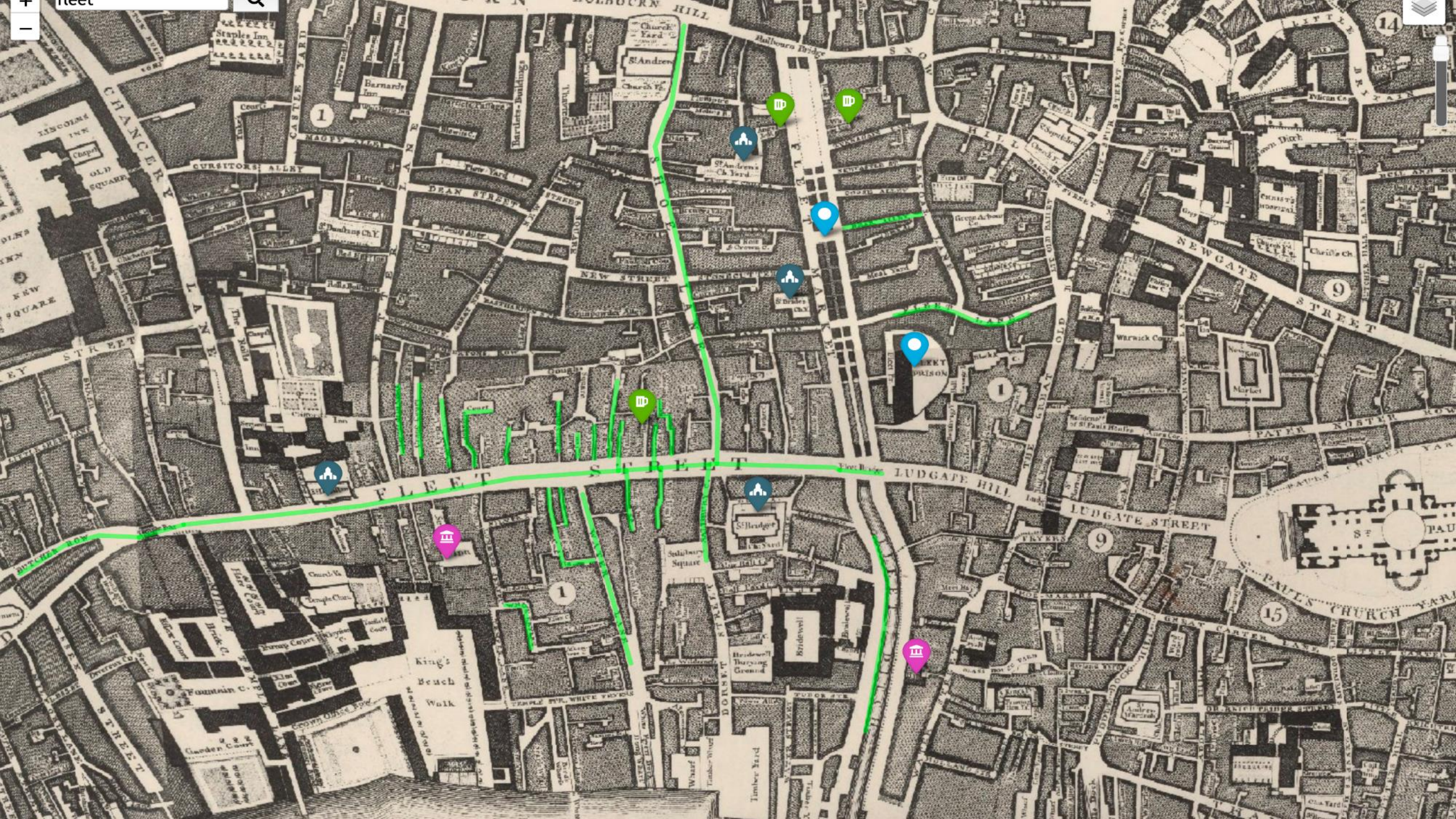
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## Newton & the Mint

From 1696 until his death in 1727, Sir Isaac Newton worked at the Royal Mint, first as Warden (to 1699) and then as Master. He vigorously prosecuted clippers and coiners, and played a vital role in major economic and financial events such as the Great Recoinage (1696–99), the amalgamation of the English and Scottish mints (1706–7), the fixing of the value of the guinea in 1717, and the effects of the South Sea Bubble of 1720. [The Newton Project](#) is creating a digital edition of Newton's work at the Mint, which will bring to light the historical and economic significance of his accomplishments.

FIND OUT MORE



Newton's London



The Mint



The Financial Revolution

## Welcome to the Newton Project

The Newton Project is a non-profit organization dedicated to publishing in full an online edition of all of Sir Isaac Newton's (1642–1727) writings — whether they were printed or not. The edition presents a full (diplomatic) rendition featuring all the amendments Newton made to his own texts or a more readable (normalised) version. We also make available [translations](#) of his most important Latin religious texts.

Although Newton is best known for his theory of universal gravitation and discovery of calculus, his interests were much broader than is usually appreciated. In addition to his celebrated [scientific](#) and [mathematical writings](#), Newton also wrote many [alchemical](#) and [religious texts](#) and he left many [administrative papers](#) in his role as Warden and then Master of the Mint.



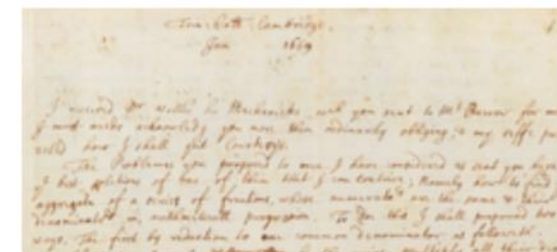
Tour



Newton's Works



His Notebooks



His Correspondence





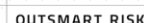
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## Forthcoming Events

- Mon, 24 May (11:00-11:45) Emerging Central & South Asian Tech Hubs: The Indonesian & Malaysian Hubs Of 10 Years Ago?
- Tue, 25 May (09:00-09:45) How Biodiversity Underpins Economic Prosperity
- Wed, 26 May (11:00-11:45) How To Achieve The Perfect Delivery
- Thu, 27 May (15:00-15:45) EOTs: The Credible Alternative To Succession

Visit <https://fsclub.zyen.com/events/forthcoming-events/>