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Excerpt  
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## THE ORATIONS

**Q**VIS IGNORAT, ei qui mathematici uocantur, quanta in obscuritate rerum et quam recondita in arte et multiplici subtilique uersentur?’ ita M. Tullius.<sup>1</sup> uiri itaque merita quem artis geometricae omnes antistitem agnoscunt – geometricae dico? immo ingenium nullis mathematics limitibus consaeptum ad quaestiones etiam physicorum spinosissimas soluendas attendit – si ego, orator numerorum prorsus ignarus, explicare coner, edepol, sicut Socrates olim, in βυθὸν φλυαρίας incidam.<sup>2</sup> cuius operis si capax essem, titulum praefigere paginae liminari debeam: ΑΓΕΩΜΕΤΡΗΤΟΣ ΜΗΔΕΙΣ ΕΙΣΙΤΩ. quid ergo? numeris aliunde quaesitis paullo maiora canamus.

Euclides πρῶτος εύρετής geometriae cluebat,  
 qui inuenit rhombos et quadras, symmetriae consortes,  
 figuras aequicrurias, quid prosident diuinae  
 trianguli concordiae, uir uere τετράγωνος.

Euclides alter nunc adest, qui spatia perscrutatur  
 nec formam nec symmetriam nec finem habentia ullum.  
 uibrationem si potes chordai demetiri  
 uel nutum, cum quassaueris, pultis coagulatae,  
 si terna derna triciens quot sint scis computare  
 ubi mutarunt locum pedes cum gymnico cerebro,  
 si in ludo calculi cales nec obuius uenire  
 pauescis ‘solitario’ uel formulae Riemanni,  
 ad summam si nomen tibist Thales aut Archimedes,  
 intellegas quid indicet fortasse Lex Atiyae.

Hoc unum, mihi sane explicatu facilius uobis intellectu promptius, non silendum: mathematicos quotquot ubique sint huius in uerba magistri iurare, quos non tantum operum suorum praestantia deuinxerit sed etiam instinctu quodam diuino excitatos ad sui aemulationem instigauerit.

Praesento uobis in Collegiis Sanctae et Individuae Trinitatis et Pembrochiano olim Socium, quem Collegium utrumque Socium honoris causa adscivit, olim apud nos mathematics paelectorem, nunc apud Oxonienses in Instituto Mathematico professorem, aureo nomismate a Societate Regia, nomismate Fieldsiano ab Vniuerso Mathematicorum Conuentu ornatum, Equitem Auratum,

MICHAELEM FRANCISCVM ATIYAH

<sup>1</sup> Cicero, *De Oratore*, 1. 3. 10.

<sup>2</sup> Plato, *Parmenides*, 130 d.

**E**VERYONE knows', said Cicero, 'that people who are called mathematicians deal in matters of incomprehensible complexity and subtlety.' If I, an innumerate orator, were to attempt to expound the achievements of a man who is acknowledged to be the leading geometrician of his day (did I say geometrician? such a label does him less than justice, for he ranges as far as the thorniest problems in mathematical physics), I fear that I might fall (in the words of Socrates) into an 'abyss of twaddle'. If I were even capable of a serious exposition, I should have to prefix to it the notice which stood at the entrance of Plato's Academy: RESTRICTED ACCESS – GEOMETERS ONLY. Let me try a type of 'number' with which I am more familiar.

The geometry we learned at school was labelled Euclidean:  
 It dealt with squares and rhomboids and with shapes isoscelean,  
 All regular, symmetrical; it showed us what the use is  
 Of the transcendental harmony of squared hypotenuses.  
 But then Sir Michael came along, to baffle comprehension,  
 With spaces a-symmetrical explored in nth dimension.  
 If you can map the motion of a cello-string vibrating  
 Or the mesmerizing wobble of a jelly undulating,  
 If you can do equations whether simple or quadratic  
 While standing on your head, because your brain's so acrobatic,  
 If you're a wiz at calculus and don't get in a panic  
 When face to face with solitons or formulas Riemannic,  
 In short, if you're a Newton or a Hardy, have no fe-ar:  
 You'll understand (maybe) the Index Theorem of Atiyah.

What may be more easily comprehended and more plainly expressed is the influence which he holds over a whole generation of mathematicians, not only by the quality of his own work but no less by his abounding enthusiasm and fecundity of ideas, which have been the inspiration of a school of disciples the world over.

I present to you a former Research Fellow of Trinity and Teaching Fellow of Pembroke, of both of which Colleges he is now an Honorary Fellow, a former University Lecturer in Mathematics, who is now Royal Society Research Professor at the Mathematical Institute in Oxford, a holder of the Gold Medal of the Royal Society and the Fields Medal of the International Congress of Mathematicians,

Sir MICHAEL FRANCIS ATIYAH, M.A., PH.D.

**R**ARA INSEQVITVR AVIS, quae, licet insulae nostrae indigena sit, terras tamen longinquas frequentat. uiderunt enim siluae Guianenses, uiderunt culmina Himalayensia, uidit Amazonas siue Andibus prosiliens siue mari Atlantico sese immergens. natiuam quippe curiositatem insito omnium animalium amore conditam habet, adeo ut cum gorillis bacchari, cum dasypodidis iocari, aptenodytarum in familiaritate uersari gaudeat. si quando ad patriam redit, non ζωιοτροφεῖον, non campos late patentes, sed potius cistellulam ad unum latus uitream pro domicilio sibi deligit. illuc, cum tantam scientiae famam collegerit, tali sit ingenii comitate, tam mellita suauiloquentia, immensa spectatrix hominum multitudo conuenire solet, quo speciosa peregrinationum miracula auribus et oculis exhauriat. per menses tres continuos obstipuerunt omnes et intenti tenebant ora, dum animantium uitam exponit πάντων ὅσσα τε γαῖαν ἔπι πνείει τε καὶ ἔρπει,<sup>1</sup> et sic naturae legibus edictum esse demonstrat, ut debilissimum quodque genus deficere, superesse ualidissimum debeat. laudamus, adclamamus, ne fabularum sit intermissio postulamus. mox renouato sermone narravit φυσίζον αἰσ, qua opum largitate plantarum animaliumque copiam nutriat et educet. ostendit hydromedusam incredibili cum eurythmia natantem, ostendit ranunculum caerulipedem proci partes agentem, exorrecta fronte seriorum praceptor, dulcibus utilia miscens, εύφιλόπταις καὶ γεραροῖς ἐπίχαρτος.<sup>2</sup>

Hodie nido suo reducem laeti excipimus, puniceo pennarum tegmine indutam, cum auolabit, prosecuturi.

Praesento uobis Excellentissimi Ordinis Imperii Britannici Commendatorem, Magistrum in Artibus, Collegii de Clare olim alumnum nunc honoris causa Socium,

DAVIDEM FRIDERICVM ATTENBOROUGH

<sup>1</sup> Homer, *Iliad*, 17. 447.

<sup>2</sup> Aeschylus, *Agamemnon*, 721–2.

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**N**EXT comes a rare bird. Although a native of our island, he is a frequent visitor to far-off climes. He has been spotted in the forests of Guyana, on the summits of the Himalayas, and following the Amazon from the Andes to the Atlantic. Inspired with a natural curiosity and a love of his fellow creatures, he has played with armadillos, cavorted with gorillas, and the ice-bound penguins count him their friend. Returning at intervals to his homeland, he has found that the habitat which suits him best is not a zoo nor the wild, but a glass-fronted box; and such is the fame of his knowledge and the charm of his manner and the sweetness of his voice that millions have gathered before him to hear the wondrous tales and see the wondrous sights brought back from his travels. For three whole months he held us spellbound by his glorious account of Life on Earth. He showed how each species evolved, the fitter surviving, the weaker declining. We cried out for more. He told how the Living Planet nourishes the multitude of plants and animals. He showed us the beauty of a jellyfish in motion, showed us the courtship of the blue-footed frog, mingling instruction with pleasure, a model of learning worn lightly, for young and old a delight.

Today we rejoice that he has returned to the nest which fledged him, and that when he takes wing again he will wear a new and scarlet plumage.

*I present to you*

**DAVID FREDERICK ATTENBOROUGH, M.A., C.B.E.,**  
*Honorary Fellow of Clare College.*

**A**D STAT VIR ΠΟΛΥΩΝΥΜΟΣ: audit enim poeta, bibliothecarius, professor, sed ante omnia fabellarum auctor, angustis quidem terminis circumscriptarum sed mirae inuentionis fecundissimarum. quis scit an antiquae superstitioni fidem habendam esse demonstrauerit? scilicet ad superos regressum modo Michaelm de Cervantes, modo Edgarum Allanum Poe, modo Valerium Francogallorum, modo Georgium Berkeley huius sub persona credas delitescentem. erunt fortasse qui huius libellos φωνάεντα συνετοῖσιν dicere et ἐρμανέων χαρίζειν arbitrentur, propterea quod multifariae doctrinae copiosus usitatas de essentia, de tempore, de cognitione notiones exploret atque in ancipiti relinquat. erunt qui ab eis animo anxiø et sibi diffidenti euadant, cum mundum depingere gaudeat modo uel horti instar in quo sunt semitae in aeternum bifurcae uel bibliothecae quae libros innumerabiles complectitur temerario litterarum ordine inscriptos, modo solitae temporum rationis adeo expertem ut saeculum minimo temporis puncto exactum, pusillum interuallum plurimos per annos protractum esse uideatur. alii filum quo errabunda e labyrintho uestigia expediant consulto hunc sibi impertiisse suspicantur, ubi hoc de philosophis Tloenensibus praedicatoruerit, non eos quae uera uel uerisimilia sed quae plena sint obstupefactionis indagare.

Quod praecipuam cum Anglis et scriptoribus Anglicis consuetudinem habet non mirum, cum matris e Staffordiae Comitatu oriundae ex filio nepos sit. paucis uero abhinc annis coram consessu Cantabrigiensium abundantι contionatus est, quos oratione perquam sapienti et animi candore deuinxit. postea, cum eidem uenerationis suaे pignus testari studerent, oratorem auscultauit de oratore de se olim fabulato fabulantem, multis quidem audientium obscurum, sed ipsi sibi planum et pellucidum.

Praesento uobis uirum inter Excellentissimi Ordinis Imperii Britannici Equites Commendatores honoris causa adscriptum,

GEORGIVM LVDOVICVM BORGES

**T**HERE stands before you a man who has been known by many names: poet, librarian, professor, but, above all, writer of fictions, miniature in scale but miraculous in invention. Perhaps he has proved the truth of ancient myths: for in his person now Cervantes, now Poe, now Valéry, now the philosopher Berkeley seem to be born again. Some may find him difficult, because, drawing on vast stores of curious learning in many languages, he challenges their assumptions about being and time and perception. Some may find him disturbing, because he writes of a world conceived now as a garden of paths that fork endlessly, now as a library of books indefinite in number, lettered at random, a world in which centuries may seem minutes and seconds seem years. Others suspect that he left them a clue to his purpose when he wrote, of the metaphysicians of *Tlön*, that they seek not for truth, nor for likelihood, but for astonishment.

He has a special attachment to England and to its writers: a grandmother from Staffordshire is responsible in part. At Cambridge they once invited him to talk to a large assembly, and he held it enthralled by his simple humanity and profoundly wise talk about many things. Later they invited him again, to tell him how much they valued him, and he listened to an orator reciting a story, which perplexed some of its hearers, because the orator ended by telling how he had once told a story about an orator who had told a story about him once. But he was not perplexed.

*I present to you*

JORGE LUIS BORGES, HON. K.B.E.

**I**NCLINANTIBVS in bellum nationibus Europaeis, dux nouus Italiae diuo Augusto Caesari decessori sollemnia honorum bis millesima indixit, sese uenditandi uirtutibus alienis, adstrepente apparitorum uulgo. erat ea tempestate Oxoniae iuuenis, Noua Zelandia recens profectus, qui illud spectaculum inrisui habuit. quippe Vergilii Horatiique laudes imperatorias inter inania esse perspexerat, rem publicam in imperium ruentem libro mox expositurus, detecto principe subdolo et per nomen pacis omnium rerum cupitore. quae uitae forensis tum condicio callebat: obtentu liberae ciuitatis non inter plebem patresque certatum honestis factionibus et citra immodestiam, sed cuncta proceribus, quanto quis regendi auarior, subiecta, ui ambitu rapina grasantibus, incertum necessitudine magis sanguinis et honorum commercio sociatis an propter conscientiam caedis. singulos potentium ac nobilium inquisiuit: hunc unde ortus, illum cui genti matrimonio iunctus. tu, rogitauit, in quas adscitus partes honorum cupidine? dum caelo deum detrahit, deabus adscripsit Prosopographiam.

Primum hoc facinus noui inter historicos principatus. inde commentarios sescentos conscripsit, quibus quinque uolumina post non suffecerunt, et libros de Tacito Sallustio Ouidio, excussa etiam de Caesaribus historia, intellecto quae Fratrum Arualium arcana. ut immensum studiorum curriculum perstringam, hoc in primis praestare instituit, non anfractus ciuilium institutionum enucleare, non de causis rerum subtiliter philosophari, nec de uita uictuque incognitae rusticorum molis reddere rationes, sed homines perinde factorum claritudine et scriptis insignes e litterarum lapidumque memoria ad uitam reuocatos repraesentare, nunc antiqui annalium auctoris praeciso atque minaci stilo, nunc uberiorem orationis copiam ab imperii uergentis scriptore nostrati mutuatus.

Praesento uobis historiae antiquae apud Oxonienses Professorem Camdensem emeritum, Equitem Auratum, Ordini insigniter Meritorum adscitum,

RONALDVM SYME

**A**S WAR APPROACHED, *a young man in Oxford, fresh from New Zealand, looked on in scorn and without illusion as the Leader of Italy decreed the celebration of a bimillennium for his deified ancestor Caesar Augustus and bathed in the effulgence of borrowed grandeur, to the pious plaudits of a black-shirted throng. The nascent historian was soon to strip from the idealized brows of the earliest Emperor the garland first hung there by Virgil and Horace. His book would tell of the Roman Revolution, when the Republic became an Empire, and a ruthless and fraudulent youth founded a tyranny in the name of peace. He had divined the true substance of political life in the dying Republic. Behind the sham and screen of a constitution subsisted no polite conflict of parties and programmes, nor the honest contention of Senate and People, but the thirst for power, wealth and glory of unscrupulous dynasts, linked by the commerce of services and favours and the sanguinary bonds of family and slaughter. He summoned the whole aristocracy to answer his questions. From what town do you come? To whom are you linked by ties of marriage? To which faction, in hope of advancement? He dethroned a god and enthroned a goddess: Prosopography.*

*This was the first intimation of his ascendancy. Innumerable papers accrued, for whose subsequent collection five volumes have not sufficed; and studies of Tacitus, Sallust, Ovid, that deceitful brew the Historia Augusta, those quaint priestly figures the Arval Brethren. If a summary estimation be permitted of productions so wide and various, we may say that he accounts it to be his prime avocation, not to scrutinize curiously the niceties of constitutions, nor to speculate abstractly on the causes of events, nor to tabulate precisely the habits and numbers of voiceless earth-coloured rustics, but to illumine the men who made the history of Rome and the motives and manners of those who recorded their actions, and to re-create and revoke them into new life and voice from the silent testimony of letters and stones, in a style incarnating now the terse and sinister annalist of the Caesars, now the rotund and ampler periods of the modern chronicler of their decline and fall.*

*I present to you*

Sir RONALD SYME, O.M.,

*Emeritus Camden Professor of Ancient History in the University of Oxford.*

**Q**VOD PRIMARIAS cantrices Itali diuas nuncupare solent, hoc uos, doctores primarii, tamquam extraneam uaniloquentiam forsitan explodere uelitis. ego equidem diuam praesentem laudibus extollendi certus sum: ἐκάς ergo ἐκάς ὄστις ἀμουσος. haec enim illud supra mortale in se habet, quod naturam suam musices modis tam penitus scit immergere atque implicare ut audientes non uoce tantum sed omnibus etiam animi et corporis adfectionibus adpellare, ad nouam uoluptatis uim, nouam perceptionis prolectare uideatur. uidelicet, dum caua solatur aegrum testudine amorem, libenter hanc credimus

tigris comitesque siluas  
ducere et riuos celeres morari.<sup>1</sup>

nec minus in hac personatam abundantiam admiramus, quae proteruam Dorabellam tam sollerter quam Alcestin flebiliter fidelem repraesentet, tam bene delicatam indolem Carlottae quam Iulii Caesaris robur ac neruos. et quid quod, dum fabula Callistonis agebatur, in scaenam prodiit modo Iuppiter, modo Diana? subit feminarum lamentantium nobilis pompa: subeunt Penelope, Octavia, Vitellia, Dido, Lucretia, subit denique quae uel maxime nos commouit Maria Scotorum Regina, exsul expes splendida dolore.

Scripsit haec ipsa uocem suam sibi a Deo non mancipio esse commodatam uerum hac condicione, ut eius fructum perciperent quam plurimi. nimirum, dum sublimes Iohannis Sebastiani modos, dum Angeli uerba somnianti Gerontio interpretatur, pro certo habemus, si quid in caelo musices futurum sit, huius nos uocem audituros esse caelestem. quod autem non rursus hanc pulpita uidebunt lugemus ipsi, lugent pulpita, et Mimnermi illa τίς δὲ βίος sine te τί δὲ τερπνόν suspirare cui non uenit in mentem? mehercule, si mihi liquidum carmen chordasque loquentes Deus secundet, et ipse cantilenae illi statim incumbam, nemini obliuiscendae modo ab hac decantatam audiuerit,

Ἐρχεο, Μοῖσα, πάλιν, πάλιν ἔρχεο, Μοῖσα ποθεινά.

Praesento uobis Excellentissimi Ordinis Imperii Britannici Dominam Commendatricem,

JANET ABBOTT BAKER

<sup>1</sup> Horace, *Odes*, 3. 11. 13–14. The English version adapts Dryden, *A Song for Saint Cecilia's Day*, 1687, 48–9.