

CHAPEL OF THE COLLEGE  
OF SAINT JOHN THE EVANGELIST  
CAMBRIDGE

JAMES ANTHONY CHARLES

B.Sc. Eng., M.A., Sc.D., FREng

FELLOW 1963–2017

JUNIOR BURSAR 1963–1967

LECTURER IN MATERIALS SCIENCE AND METALLURGY 1963-1988

SOMETIME DIRECTOR OF STUDIES IN NATURAL SCIENCES  
AND IN MATERIAL SCIENCE AND METALLURGY

READER IN PROCESS METALLURGY 1978–1990

23 AUGUST 1926  
13 NOVEMBER 2017

SATURDAY 26 MAY 2018

## JAMES ANTHONY CHARLES

JAC was born in Ardrossan but his parents had grown up in Cambridge. Tragically his father was killed in a road accident in 1932. His schooling was mostly in Bromley with evacuation to Cambridge from 1940 to 1942. In 1943 he entered Imperial College, joining the Metallurgy course in 1944 and graduating BSc Eng, ARSM in 1947. With a first class degree in metallurgy he was directed into industry instead of military service and joined J. Stone. In 1950 he moved to the British Oxygen Company.

A University Lecturer in Metallurgy from 1960, JAC supervised a wide range of projects, mostly involving relevance to industrial practice. He was often a consultant for industry and Government bodies, and was actively involved with professional metallurgical societies. In 1965 a chance conversation initiated his interest in archaeometallurgy. He also contributed to the work of the Fitzwilliam Museum.

Recognition of his achievements included ScD (1973), Reader (1978), Fellow of the Royal Academy of Engineering (1983), Fellow of the Royal Society for the encouragement of Arts, Manufactures and Commerce (1985), Honorary Fellow of the Institute of Materials (2002), Beilby Medal and Prize (1965), Hadfield Medal and Prize (1977), Kroll Medal and Prize (1989), and Elegant Work Prize (1992), with Y.W. Cho.

JAC joined St John's College in 1960, was elected a Fellow in 1963, and served principally as Junior Bursar (1963-67) and Director of Studies in Natural Sciences (1970-1987). His final book, *One Man's Cambridge* (2006), focuses on the life of his father, whom he greatly admired, and reveals that his great-great-grandfather and great-grandfather had held the post of St John's College Groom and their wives had been College bedmakers.

JAC and Valerie (née King), who married in 1951, were very hospitable, entertaining or providing shelter for many. They had two children, Richard and Stephen. JAC was devastated when Valerie died in 2001 and again when Richard died in 2013. In 2003 he married a long-standing family friend, Dr Marcia Edwards. Stephen and Marcia survive him.

JAC was enthusiastic, knowledgeable and helpful; almost a guardian angel to many students. He was resolutely a “Metallurgist”, interested primarily in industrial processes, but his intuitive understanding led to important work in archaeometallurgy and museum collections. His long involvement with St John’s College brought him particular pleasure, not least because past members of his family had been College servants.

**An extract from  
‘One Man's Cambridge: The Life and Times of  
J.H.V. Charles 1887-1932’**

Much has been written of the motivation to remember and record the past. In the first place, it is understandable that one should be interested in the life and circumstance of one's forebears. We are our father and our mother, and generations beyond; whilst environment may influence our development and full character to a degree, basically we are what our inherited genes dictate. And in a sense we return to our children, as they too grow old, as in memory our fathers and mothers return to us. It does matter from whence we came, and like it or not, we are locked into a line where we belong. There is a continuity not to be disregarded.

For me, with advancing years I have become increasingly aware of the repercussions of my father's early death on my own life and its development, and, now that grandparenthood is well established, the restrictions that the sad event also imposed on my sons' experiences and social environment. To have known a father, and on their part a grandfather, who was an eminent practical scientist (for that, I am sure, would have been his destiny), who knew the names of all butterflies and moths, rowed, skated, played cricket and golf, had rowed for many years and who was in addition, by all accounts, a very kindly, humorous man, must have influenced us all with a sense of leadership and with encouragement. A desire to know more about him on my own part was the initial stimulus for this effort. This inevitably led to considerations of the national and local environment in which he lived, and how these might have affected his life and development. My own memories could not add anything directly to this biography, except by the route of oral tradition and the aspects that remained of the earlier Cambridge by the 1930s and 40s, when I first became aware of them.

## ORDER OF SERVICE

¶Stand

### INTROIT

Requiem aeternam dona eis Domine, et lux perpetua luceat eis.  
Te decet hymnus Deus in Sion, et tibi reddetur votum in Jerusalem.  
Exaudi orationem meam, ad te omnis caro veniet.  
Requiem aeternam dona eis Domine, et lux perpetua luceat eis.

*Rest eternal grant them, Lord, and let light perpetual shine upon them.  
Thou, O God, art praised in Sion : and unto thee shall the vow be  
performed in Jerusalem.*

*Thou that hearest the prayer : unto thee shall all flesh come.*

*Rest eternal grant them, Lord, and let light perpetual shine upon them.*

Words from the Requiem Mass

Music Plainsong

### SENTENCES

We are met together in remembrance of JAMES ANTHONY CHARLES: to give thanks for his contributions to metallurgical science as well as to the good governance and well-being of this his College, for the benefit of his friendship; and to commend his soul to the gracious keeping of Almighty God.

The words of the Lord are pure words; even as the silver, which from earth is tried and purified seven times in the fire.

For I am persuaded, that neither death, nor life, nor angels, nor principalities, nor powers, nor things present, nor things to come, nor height, nor depth, nor any other creature, shall be able to separate us from the love of God, which is in Christ Jesus our Lord.

Therefore, my beloved brethren, be ye steadfast, unmoveable, always abounding in the work of the Lord, forasmuch as ye know that your labour is not in vain in the Lord

1. I will magnify thee, O God, my King : and I will praise thy Name for ever and ever.
2. Every day will I give thanks unto thee : and praise thy Name for ever and ever.
3. Great is the Lord, and marvellous worthy to be praised : there is no end of his greatness.
4. One generation shall praise thy works unto another : and declare thy power.
5. As for me, I will be talking of thy worship : thy glory, thy praise, and wondrous works;
6. So that men shall speak of the might of thy marvellous acts : and I will also tell of thy greatness.
7. The memorial of thine abundant kindness shall be shewed : and men shall sing of thy righteousness.
8. The Lord is gracious and merciful : long-suffering and of great goodness.
9. The Lord is loving unto every man : and his mercy is over all his works.
10. All thy works praise thee, O Lord : and thy saints give thanks unto thee.
11. They shew the glory of thy kingdom : and talk of thy power;
12. That thy power, thy glory, and mightiness of thy kingdom : might be known unto men.
13. Thy kingdom is an everlasting kingdom : and thy dominion endureth throughout all ages.

Glory be to the Father, and to the Son : and to the Holy Ghost;  
As it was in the beginning, is now, and ever shall be : world without end.  
Amen.

Chant *George Garrett*  
(1834–1897)

*Read by  
Stephen Charles*

Above all, we should remember that the more important the end, the higher its nature, the more must the means used to achieve it partake of its own nature. You cannot promote understanding except by appealing to understanding, or tolerance except by tolerance; or, indeed, any quality of the soul except by speaking to the soul. Compassion is propagated by compassion, mercy by mercy, love by love. You cannot impart them by compulsion, by deception, by appealing to motives of self-interest, by the methods of the propagandist or the slogan-writer, nor even merely by exhortation. In all these higher spheres, methods must be accordant with ends. Do men gather grapes of thorns, or figs of thistles?

If our own experience, hard-won, often repudiated but none the less irrefragable, shows us that only the good produces the good, the gentle the gentle, the loving the loving, the merciful the merciful, the constructive the constructive, and that the evil, the violent, the destructive, yield only more of themselves, this is not because we have discovered some imposed scheme of things we should be prudent to obey. It is because we have come to see further into the nature of things. And it is true, not only when the agent is man, but also—and how much more—when the agent is God. The Christian virtues are not commands, however deep the obligation they impose; they are revelations of the nature of things, of what is disclosed to intelligent, penetrating, and patient sight.

*J.S. Boys Smith  
(1901–1991)*

## ANTHEM

### GOD SO LOVED THE WORLD

God so loved the world,  
that he gave his only begotten Son,  
that whoso believeth in him should not perish,  
but have everlasting life.

For God sent not his Son into the world  
to condemn the world;  
but that the world through him might be saved.

Words *John 3 vv. 16–17*

Music *John Stainer*  
(1840–1901)

## LESSON

*Read by*  
*The Master*

Rejoice in the Lord always: and again I say, Rejoice. Let your moderation be known unto all men. The Lord is at hand. Be careful for nothing; but in every thing by prayer and supplication with thanksgiving let your requests be made known unto God. And the peace of God, which passeth all understanding, shall keep your hearts and minds through Christ Jesus. Finally, brethren, whatsoever things are true, whatsoever things are honest, whatsoever things are just, whatsoever things are pure, whatsoever things are lovely, whatsoever things are of good report; if there be any virtue, and if there be any praise, think on these things.

*Philippians 4 vv. 4–8*

## ANTHEM

### WIE LIEBLICH SIND DEINE WOHNUNGEN

Wie lieblich sind deine Wohnungen, Herr Zebaoth!  
Meine Seele verlangt  
und sehnet sich nach den Vorhöfen des Herrn;  
mein Leib und Seele freuen sich in dem lebendigen Gott.  
Wohl denen, die in deinem Hause wohnen,  
die loben dich immerdar!  
Wie lieblich sind deine Wohnungen!

*How lovely are thy dwellings fair, O Lord of Hosts.  
My soul ever longeth and fainteth sore for the blest courts of the Lord;  
My heart and flesh do cry to the living God.  
How lovely are thy dwellings fair, O Lord of Hosts.  
O Blest are they that in thy house are dwelling,  
They ever praise thee, O Lord, for evermore.  
How lovely are thy dwellings fair.*

Words *Psalm 84 vv. 1–2, 4*

Music *Johannes Brahms*  
(1833–1897)

## ADDRESS

*Dr John Leake*

*Minister* Let us pray.

*Minister* Lord, have mercy upon us.

*All* **Christ, have mercy upon us.**

*Minister* Lord, have mercy upon us.

*All* **Our Father, which art in heaven, hallowed be thy Name, thy kingdom come, thy will be done, in earth as it is in heaven. Give us this day our daily bread; and forgive us our trespasses, as we forgive them that trespass against us; and lead us not into temptation, but deliver us from evil. For thine is the kingdom, the power, and the glory, for ever and ever. Amen.**

Unto thee, O God, be praise and thanksgiving for every act of generosity and devotion, known or unknown, in all the duties of life. More especially we praise thy name for those who, having endured faithfully, have finished their course on earth. Grant to them eternal peace; guide them still in whatever unknown paths they tread; and grant that we, strengthened by their example and fellowship, may be faithful unto death and gain with them the inheritance of the saints in light; through Jesus Christ our Lord. **Amen.**

O everlasting God, with whom a thousand years are but as one day, and in whose name are treasured here the memorials of many generations: we thank thee for the works and endeavours of all the sons and daughters of this College, and especially for those of JAMES CHARLES whom we now remember in the silence of our hearts; and we beseech thee that we who here remain, inspired by his work and achievement, may live together in humility and the pursuit of virtue and true wisdom, so that with him we may receive the crown of glory that fadeth not away; through Jesus Christ our Lord. **Amen.**

O God, who hast prepared for them that love thee such good things as pass man's understanding, pour into our hearts such love towards thee, that we, loving thee above all things, may attain thy promises which exceed all that we can desire; through Jesus Christ our Lord. **Amen.**

Infunde, quaesumus, Domine Deus, gratiam tuam in mentes nostras, ut, cum omnibus qui in fide Christi decesserunt, ad caelestem vitam resurgamus, per Jesum Christum Dominum nostrum. **Amen.**

The Grace of our Lord Jesus Christ, and the love of God, and the fellowship of the Holy Ghost, be with us all evermore. **Amen.**

## HYMN

*¶Stand*

Immortal, invisible, God only wise,  
In light inaccessible hid from our eyes,  
Most blessèd, most glorious, the Ancient of Days,  
Almighty, victorious, thy great name we praise.

Unresting, unhasting, and silent as light,  
Nor wanting, nor wasting, thou rulest in might;  
Thy justice like mountains high soaring above  
Thy clouds which are fountains of goodness and love.

To all life thou givest — to both great and small;  
In all life thou livest, the true life of all;  
We blossom and flourish as leaves on the tree,  
Then wither and perish — but nought changeth thee.

Great Father of glory, pure Father of light,  
Thine angels adore thee, all veiling their sight;  
All laud we would render: O help us to see  
'Tis only the splendor of light hideth thee.

Words *W Chalmers Smith*  
(1824–1908)

Tune *ST DENIO*  
*Adapted from a Welsh song set to a hymn*

## THE COLLEGE PRAYER

Bless, O Lord, the work of this College, which is called by the name of thy beloved disciple; and grant that love of the brethren and all sound learning may ever grow and prosper here, to thy honour and glory, and to the good of thy people, who, with the Father and the Holy Spirit, livest and reignest, one God, world without end. **Amen.**

## THE BLESSING

*¶Remain standing*

### CHORALE

#### **RECEIVE ME, MY REDEEMER**

Receive me, my Redeemer,  
My Shepherd, make me thine;  
Of every good the fountain,  
Thou art the spring of mine.  
How oft thy words have fed me  
On earth with angels' food;  
How oft thy grace hath led me  
To Highest heavenly good.

Words *Christian Friedrich Henrici 'Picander'*  
(1700–1764)

Music *Johann Sebastian Bach*  
(1685–1750)

### ORGAN VOLUNTARY

Prelude in E flat major (BWV 552i)

*Johann Sebastian Bach*  
(1685–1750)

Following this Service,  
Refreshments will be served in the Hall

The retiring collection today is in aid of



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