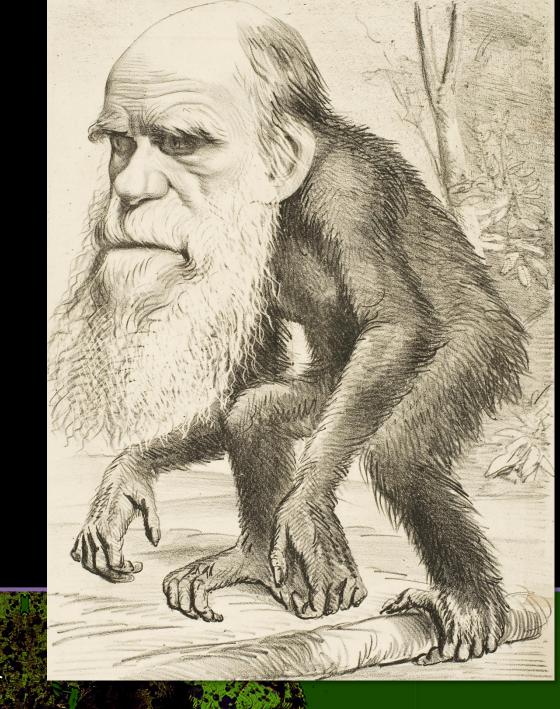
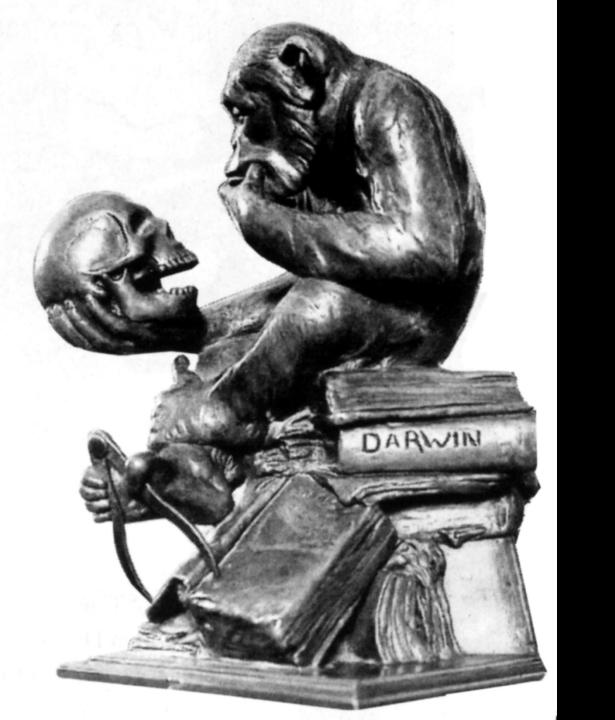


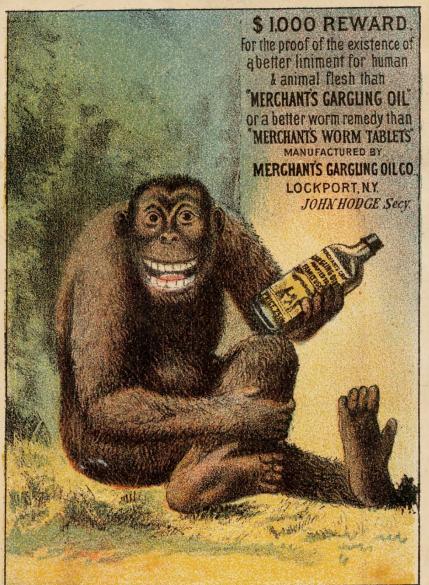
Making a Monkey out of Darwin

Darwin's Descent: 2









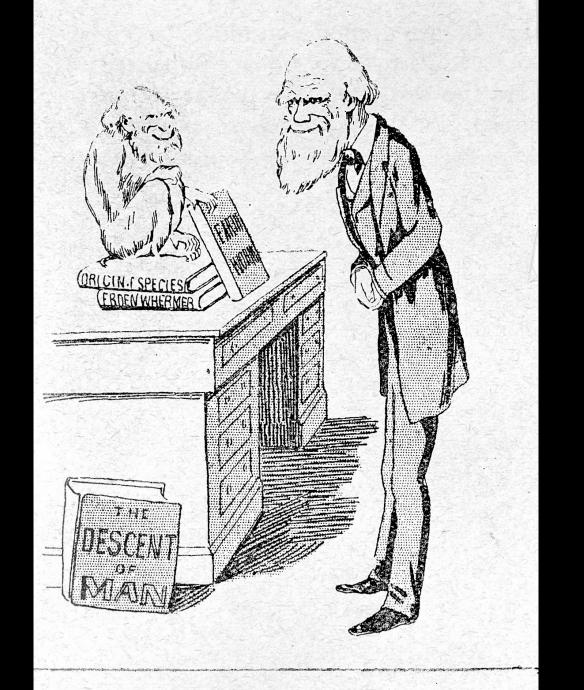
THE COURIER LITH.CO. BUFFALO, N.Y.

IF I AM DARWIN'S GRANDPAPA,
IT FOLLOWS DON'T YOU SEE,
THAT WHAT IS GOOD FOR MAN AND BEAST,
IS DOUBLY GOOD FOR ME.



THAT TROUBLES OUR MONKEY AGAIN.

Female descendant of Marine Assidian: -- REALLY, MR. DARWIN, SAY WHAT YOU LIKE ABOUT MAN; BUT I WISH YOU WOULD LEAVE MY EMOTIONS ALONE!"



DARWIN.





Origins of apes?

Darwin said nothing about apes in the *Origin*.

One sentence about human evolution ("light will be thrown on the origin of man and his history").

"Monkey" appeared just three times (with no hint of any connection to humans).

"Ape" didn't appear at all (nor did the names of any of the species of great ape).

THE ORIGIN OF SPECIES

BY MEANS OF NATURAL SELECTION,

OR THE

PRESERVATION OF FAVOURED RACES IN THE STRUGGLE FOR LIFE.

By CHARLES DARWIN, M.A.,

FELLOW OF THE ROYAL, GEOLOGICAL, LINNÆAN, ETC., SOCIETIES;
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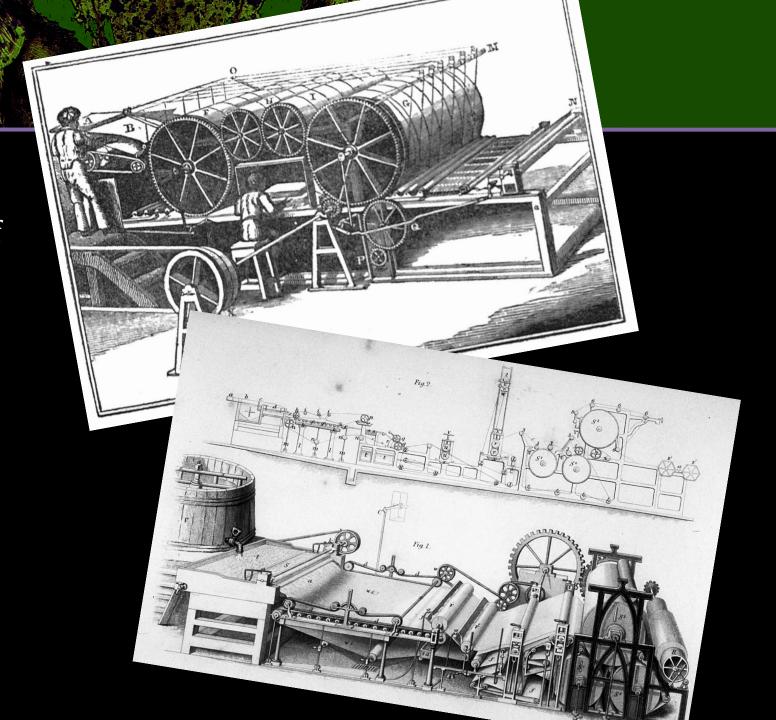
LONDON:

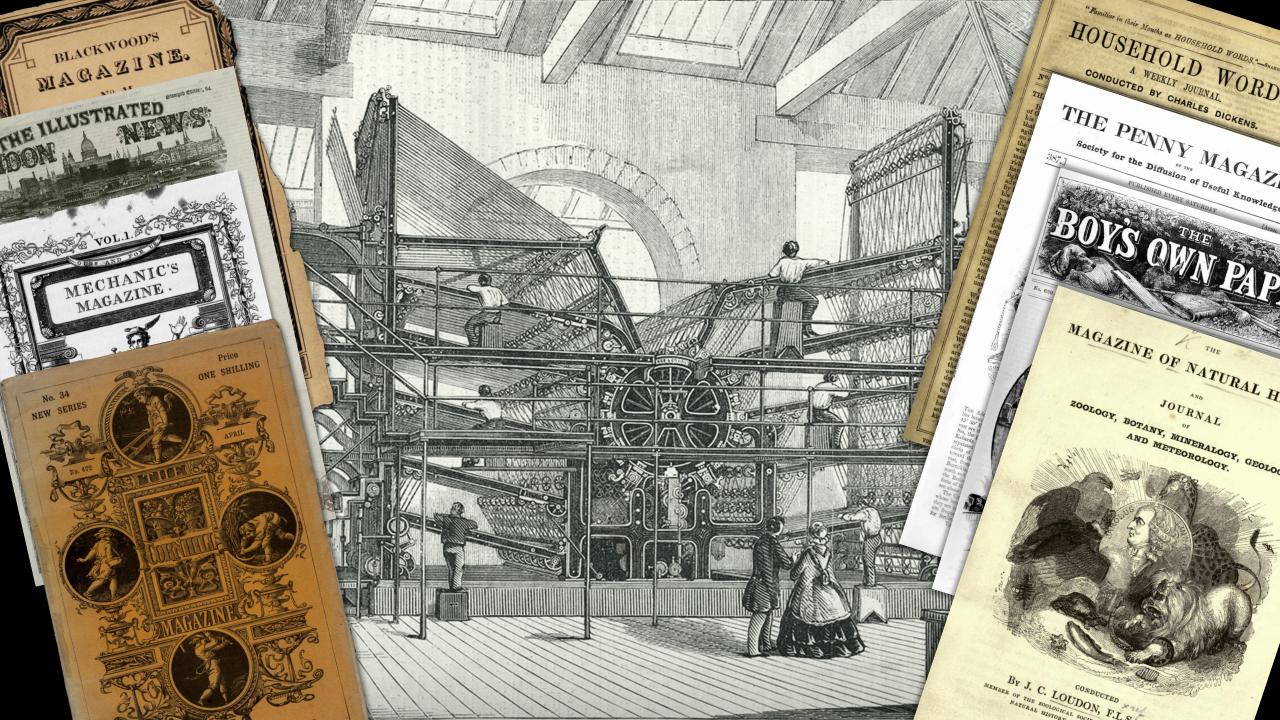
JOHN MURRAY, ALBEMARLE STREET. 1859.

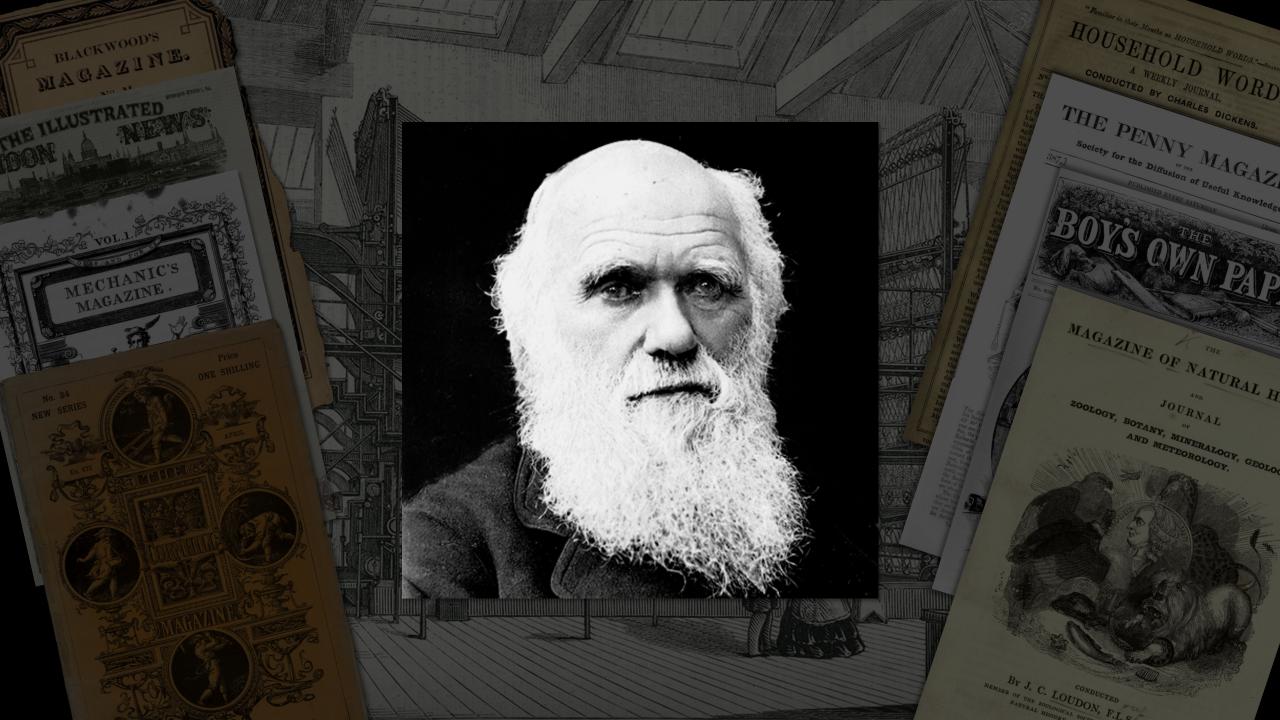
The right of Translation is reserved.

Scientific celebrity

Victorian industrialisation of communications produced real mass media.

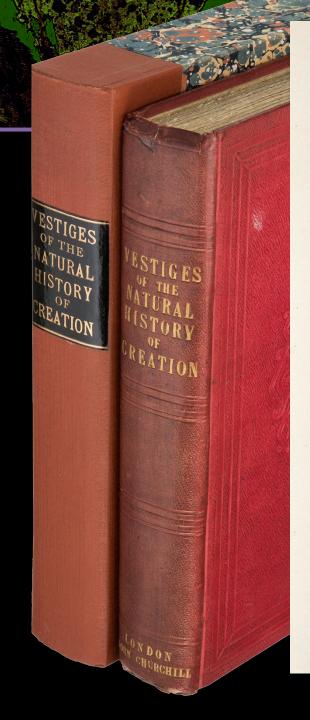






Vestiges of controversy

1844: The Vestiges of the Natural History of Creation, creates a sensation, becoming Britain's best selling book on evolution.



VESTIGES

OF

THE NATURAL HISTORY

OF

CREATION.



LONDON:

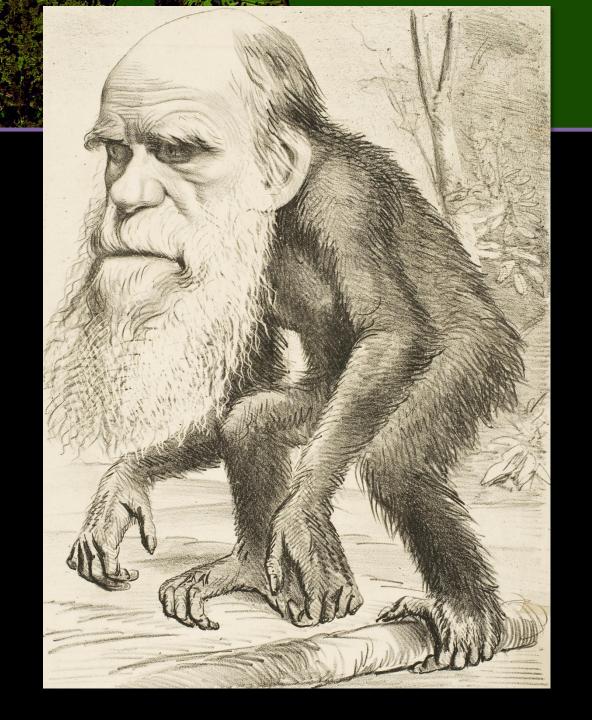
JOHN CHURCHILL, PRINCES STREET, SOHO.

MDCCCXLIV.

Reading the *Origin*

Earlier books – from the Bible to the *Vestiges* – determined how Darwin would be read.

But existing ideas about apes were even more important.



Reflecting on apes

"Western" cultures have mostly had a negative view of monkeys and apes.





Orang-outan

Jacob de Bondt (or Bontius), a Dutch physician and naturalist reported the belief that apes could speak but refused to so as to avoid work.

De Bondt was the first to use the Malay name in print and explained that "Ourang Outang, quod hominem silvæ significat" ('which means man of the forest/woods'), 1658.

IACOBI BONTII,

Medici Civitatis Batavia Nova in Iava Ordinarii,

HISTORIÆ

Naturalis & Medicæ

INDIÆ ORIENTALIS

LIBRI SEX.

I. DE CONSERVANDA VALETVDINE.

II. METHODVS MEDENDI.

III. OBSERVATIONES E CADAVERIBVS.

IV. NOTÆ IN GARCIAM AB ORTA.

V. HISTORIA ANIMALIVM.

VI. HISTORIA PLANTARVM.

Inquorum Librorum penultimo, Natura Animalium, Avium, & Piscium: In ultimo autem, Arborum & Plantarum Species mira, Europais incognita, ac ad Vivum delineata, explicantur.

COMMENTARII,

Quos Auctor, morte in Indias præventus, indigestos reliquit,

A

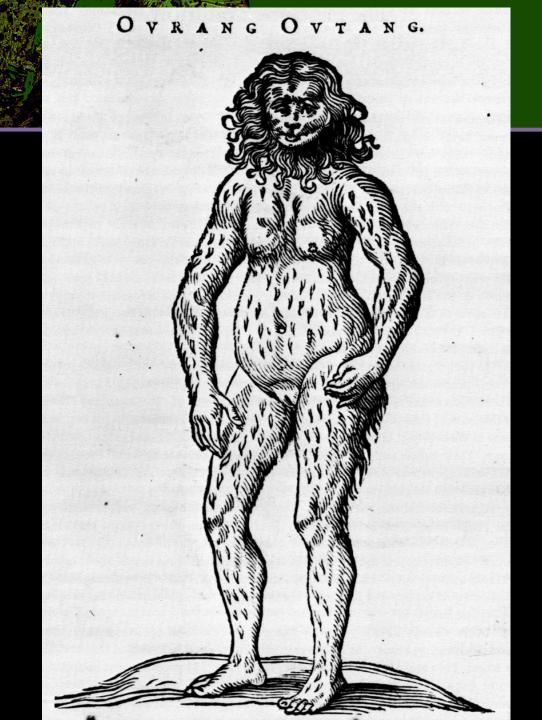
GVLIELMO PISONE,

In Ordinem redacti & illustrati, atque Annotationibus & Additionibus Rerum & Iconum necessaris adaucti.

Orang-outan

Jacob de Bondt (or Bontius), a Dutch physician and naturalist reported the belief that apes could speak but refused to so as to avoid work.

De Bondt was the first to use the Malay name in print and explained that "Ourang Outang, quod hominem silvæ significat" ('which means man of the forest/woods'), 1658.



Tyson's "Pygmie"

First accurate European description of a great ape: Edward Tyson,

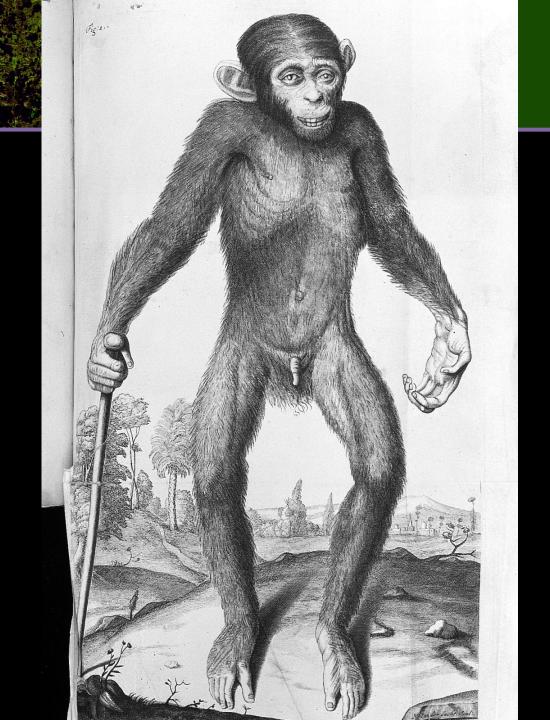
Orang-outang, sive homo sylvestris,
or, The anatomy of a pygmie
compared with that of a monkey, an
ape, and a man (1699).



Tyson's "Pygmie"

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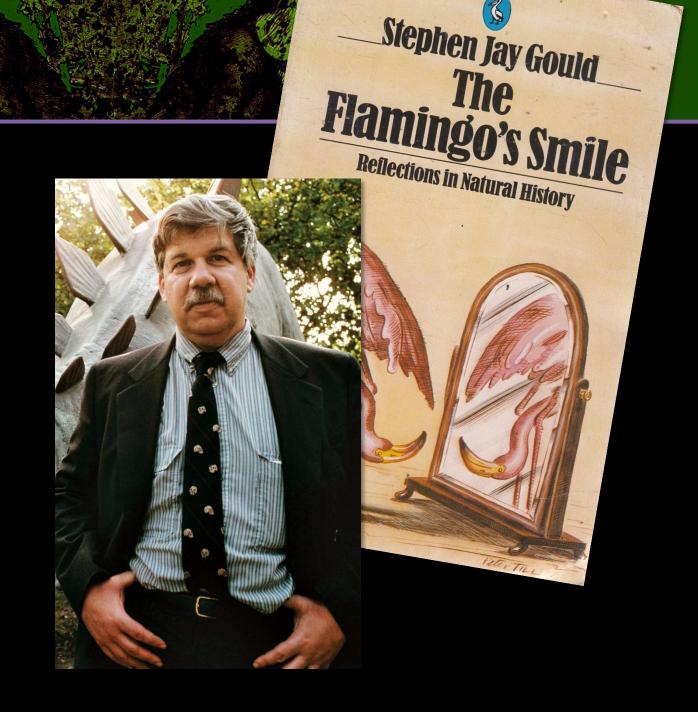
Orang-outang, sive homo sylvestris,
or, The anatomy of a pygmie
compared with that of a monkey, an
ape, and a man (1699).



Stephen Jay Gould (1941–2002)

Harvard-based historian and paleontologist.

Essay "To show an ape" about Tyson.



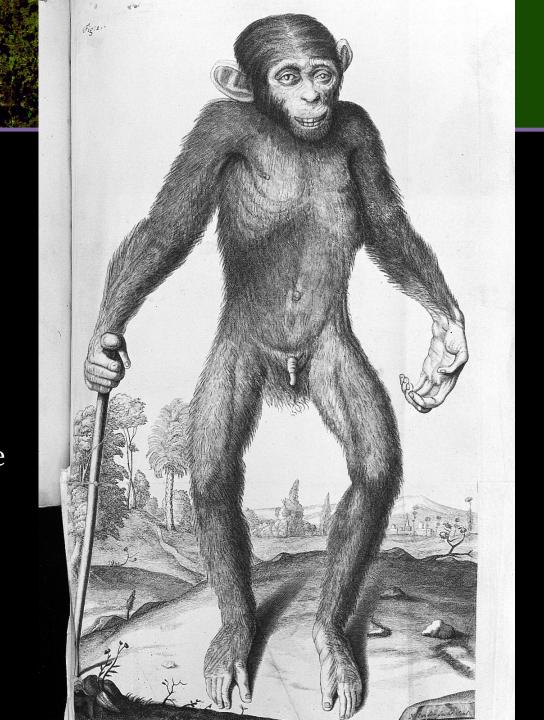
The Great Chain of Being

Ancient idea that shaped Tyson's interpretation:

"Our Pygmie is no man, nor yet the common ape; but a sort of animal between both".

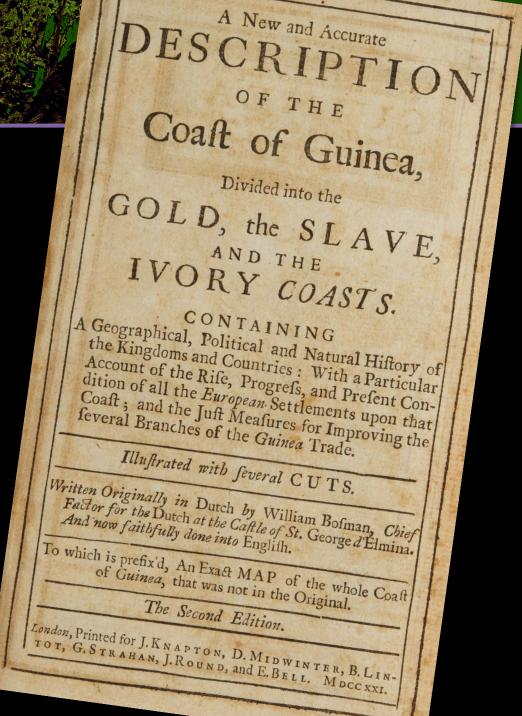
"Our Pygmie has many advantages above the rest of its species, yet I still think it but a sort of ape and a mere brute".

"as the proverb has it, an ape is an ape, 'tho finely clad".



Wicked apes?

Another Dutchman, Willem Bosman mentioned West African apes in his *New and Accurate Description of the Coast of Guinea* (English, 1705; originally *Naauwkeurige Beschryving van de Guinese- Goud-Tand- en Slavekust*, 1702).



Wicked apes?

DESCRIPTION

OF THE

Coast of Guinea,

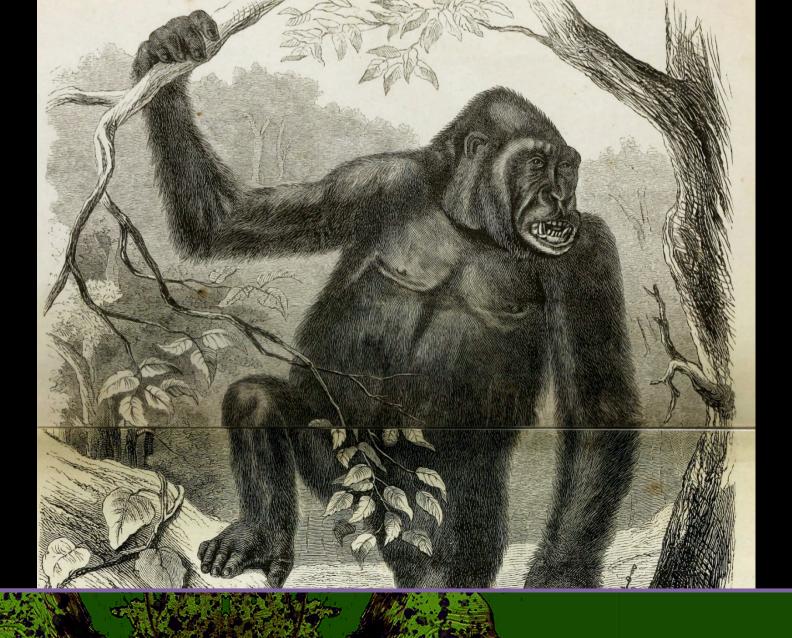
Divided into the

GOLD, the SLAVE

But indeed these are a terrible pernicious sort of Brutes, which seem to be made only for mischief.

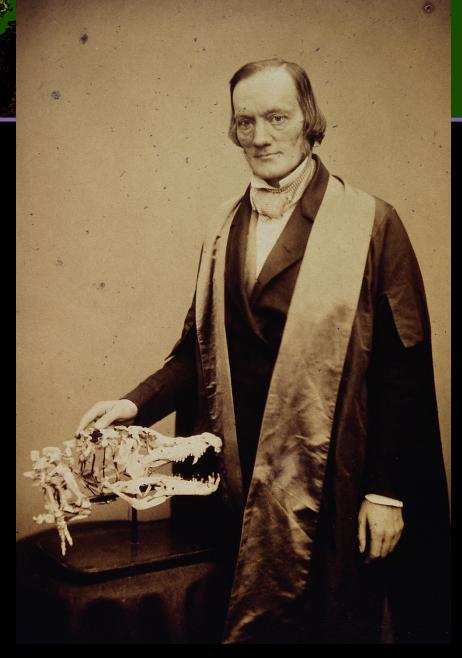
Some of the Negroes believe, as an undoubted Truth, that these Apes can speak, but will not, that they may not be set to work; which they do not very well love: This is their Opinion of them.





Richard Owen

(1804–1892). Worked at the Royal College of Surgeons' Hunterian Museum (1827–1856). Then superintendent of the natural history departments at the British Museum (1856–1881).



© Wellcome Collection

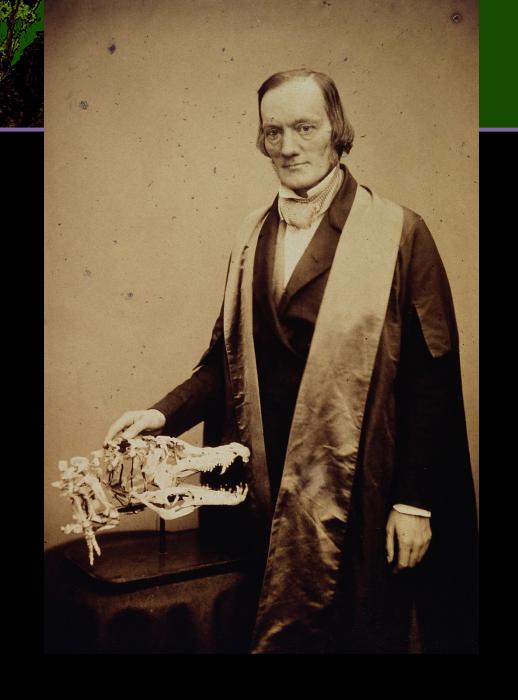


Richard Owen

Built a powerful patronage network among Britain's Anglican establishment.

Became Britain's leading comparative anatomist. Particular expertise in ape/monkey anatomy.

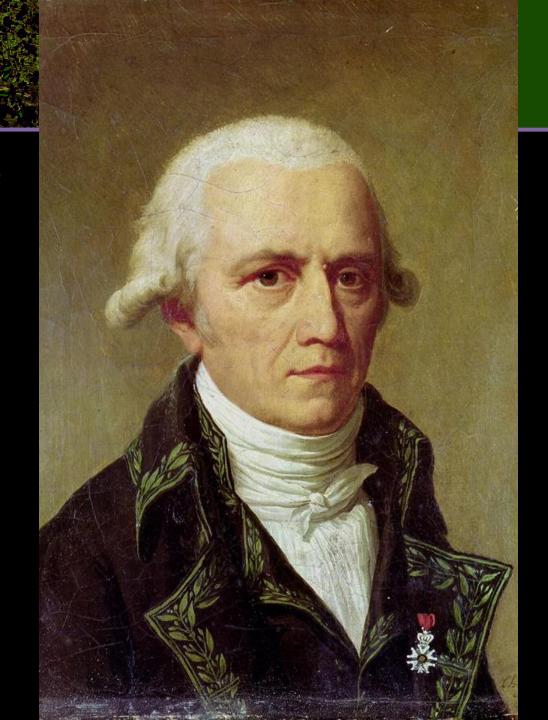
Used his expertise to argue against "transformism" (evolution).



Jean Baptiste Pierre Antoine de Monet, Chevalier de Lamarck

(1744-1829)

Worked at the Museum d'Histoire Naturelle, Paris.



Lamarck

Species had not all been created at the same time, but changed and developed.

He called his theory *transformiste* ('transformist').

PHILOSOPHIE ZOOLOGIQUE,

OT

EXPOSITION

Des Considérations relatives à l'histoire naturelle des Animaux; à la diversité de leur organisation et des facultés qu'ils en obtiennent; aux causes physiques qui maintiennent en eux la vie et donnent lieu aux mouvemens qu'ils exécutent; enfin, à celles qui produisent, les unes le sentiment, et les autres l'intelligence de ceux qui en sont doués;

PAR J.-B.-P.-A. LAMARCK,

Professeur de Zoologie au Muséum d'Histoire Naturelle, Membre de l'Institut de France et de la Légion d'Honneur, de la Société Philomatique de Paris, de celle des Naturalistes de Moscou, Membre correspondant de l'Académie Royale des Sciences de Munich, de la Société des Amis de la Nature de Berlin, de la Société Médicale d'Emulation de Bordeaux, de celle d'Agriculture, Sciences et Arts de Strasbourg, de celle d'Agriculture du département de l'Oise, de celle d'Agriculture de Lyon, Associé libre de la Société des Pharmaciens de Paris, etc.

TOME PREMIER.

A PARIS.

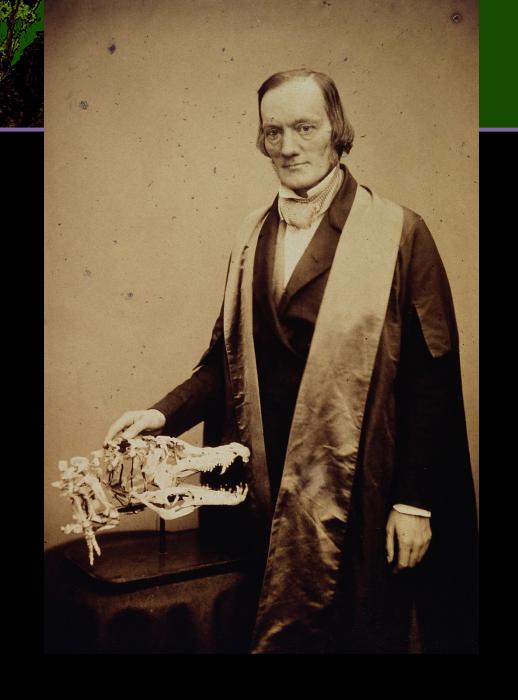
Chez L'AUTEUR, au Muséum d'Histoire Naturelle (Jardin Liddes Plantes).

M. DCCC. IX.

Richard Owen

In 1855, Owen concluded one of his papers by asserting that nine-tenths of the differences which distinguished:

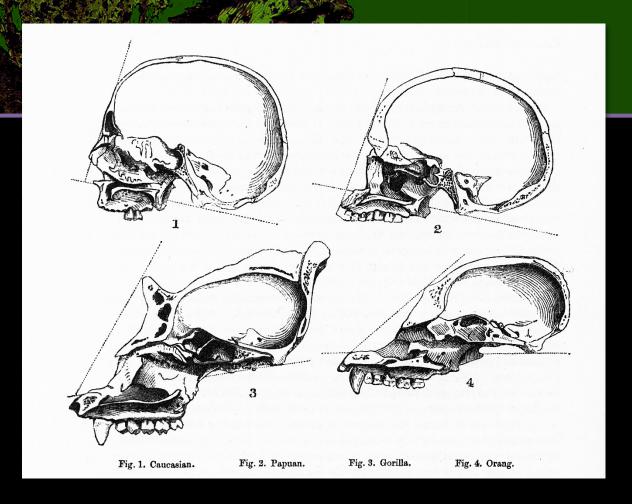
"the great chimpanzee [the gorilla] from the human species, must stand in contravention of the hypothesis of transmutation and progressive development".



Richard Owen

One early paper (1853) concluded that even the "Hottentots [i.e. the Khoikhoi, or Khoisan, people of Southern Africa] and Papuans of Australia" who he argued "have the smallest cranial capacity among the human races" still had double the brain of a gorilla.

Size was not the only difference: human brains had unique features, such as the "hippocampus minor" that no ape possessed.

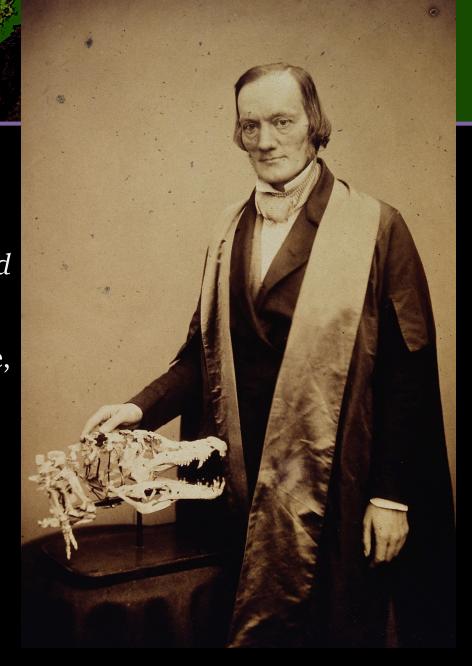


Richard Owen

On the classification and geographical distribution of the Mammalia... to which is added an appendix 'On The Gorilla' (1859).

Owen concluded that the unique human posture, hand and brain were the means by "man":

"fulfils his destiny as the master of this earth, and of the lower Creation. Such are the dominating powers with which we, and we alone, are gifted! I say gifted, for the surpassing organisation was no work of ours. It is He that hath made us; not we ourselves".

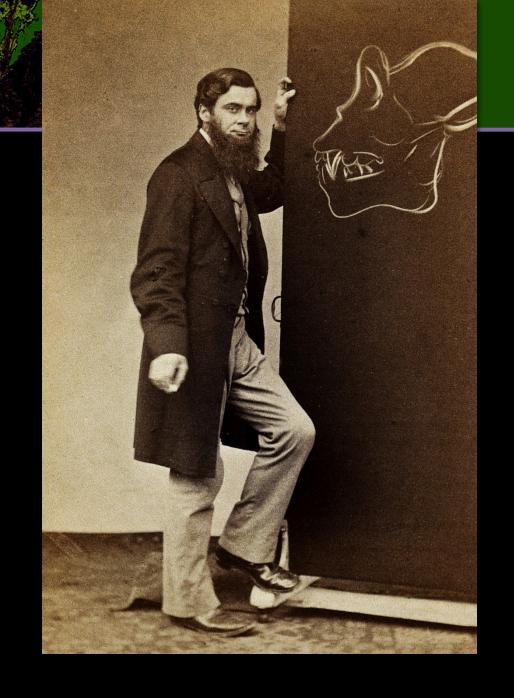


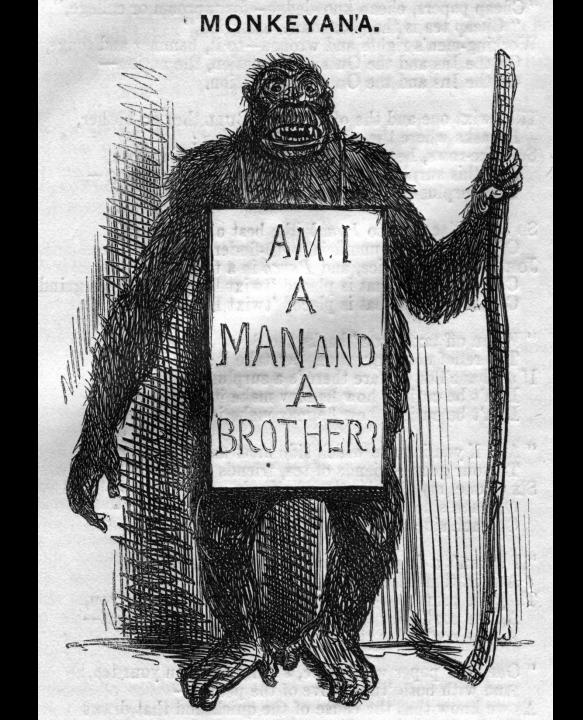
Thomas Henry Huxley

(1825–1895). Attacked Owen's arguments about apes.

Promoted his hippocampus views in the newly founded *Natural History Review*.

Owen stuck to older, more conventional journals, in an effort to keep the debate within acknowledged scientific circles.





Monkeyana

Then HUXLEY and OWEN,

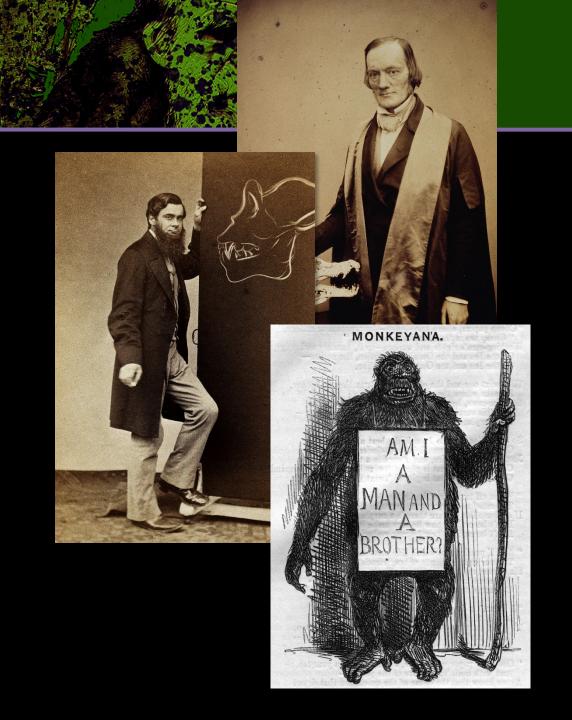
With rivalry glowing,

With pen and ink rush to the scratch;

'Tis Brain versus Brain,

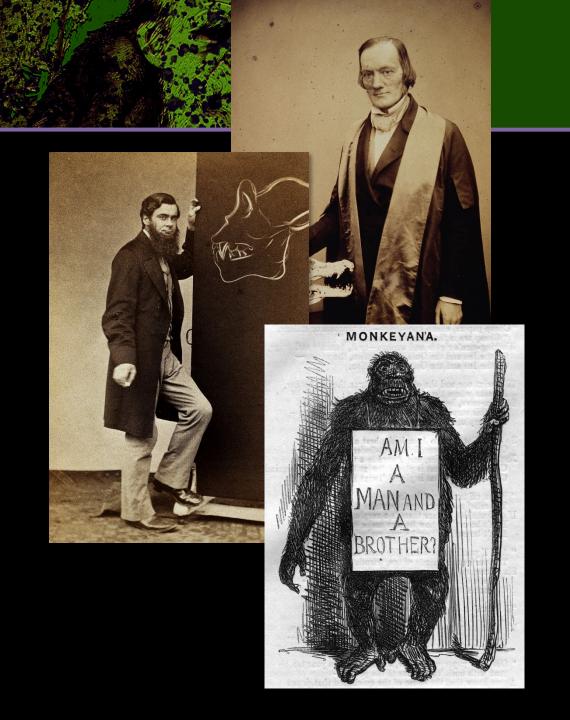
Till one of them's slain,

By JOVE! it will be a good match!



Monkeyana

Says Owen, you can see
The brain of Chimpanzee
Is always exceedingly small,
With the hindermost "horn"
Of extremity shorn,
And no "Hippocampus" at all.

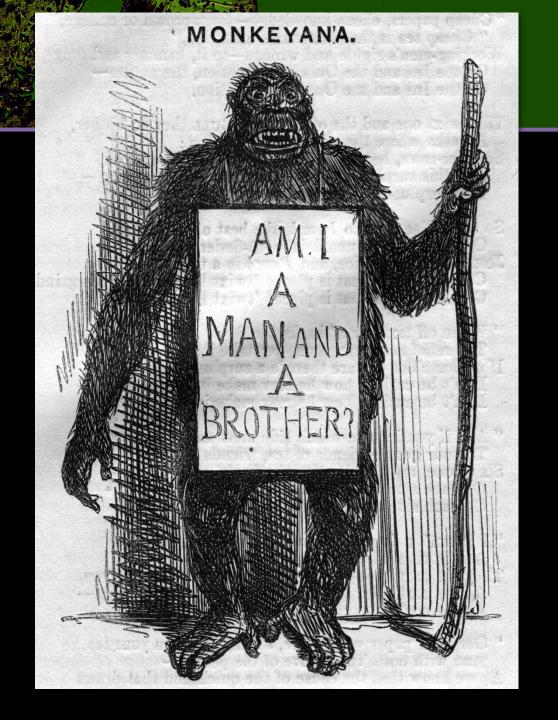


Gorillas in our midst

Monkeyana

Pre-Darwinian evolutionary context was evident:

"The Vestiges taught,
That all came from naught,
By "development,"
so called, "progressive;".

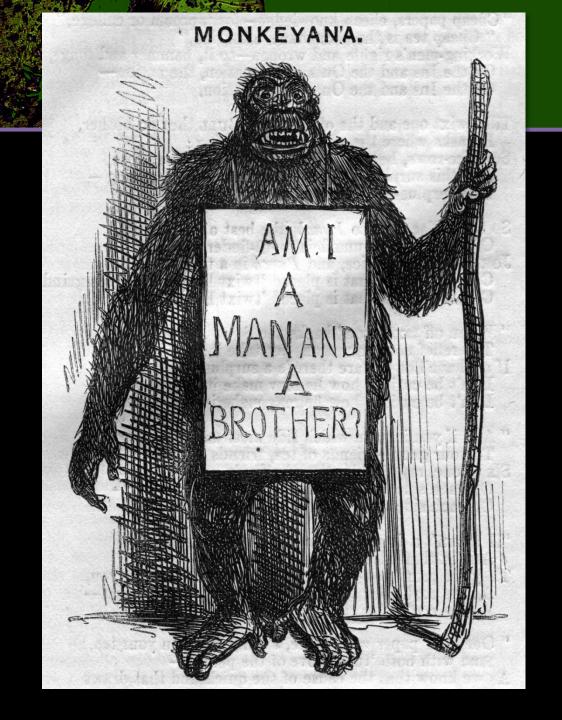


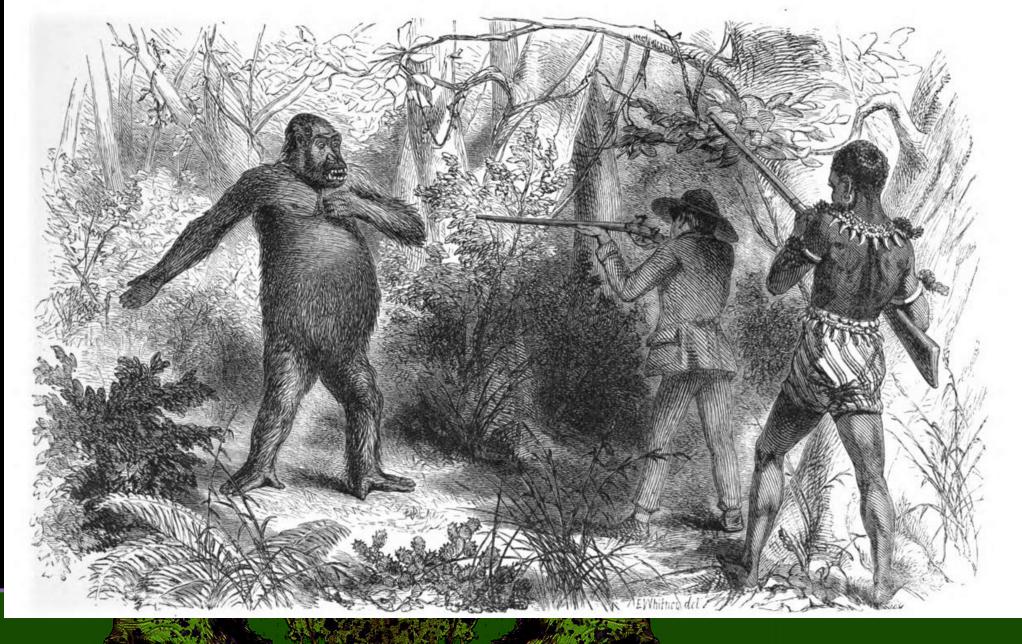
Gorillas in our midst

Monkeyana

Among the differences between humans and apes was that:

"They can't stand upright, Unless to show fight, With 'Du Chaillu,' that chivalrous knight!".





Made in the ape's image?

Paul Belloni du Chaillu

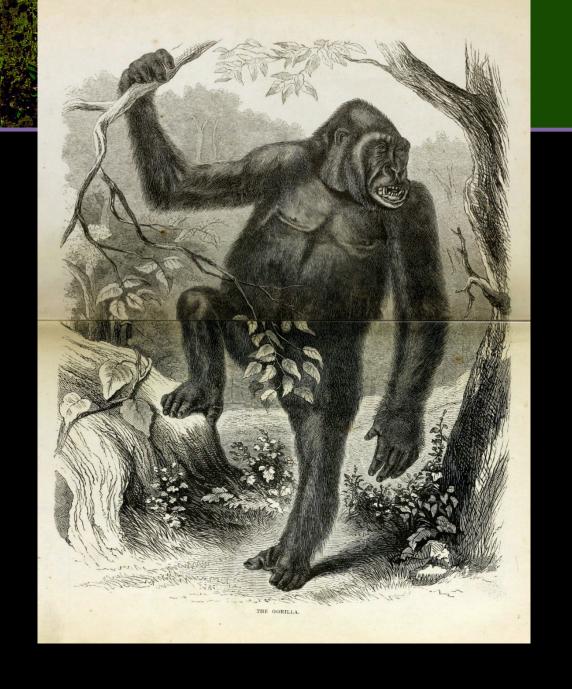
(1831??-1903)

French-American traveller and author.

1855: Academy of Natural Sciences, Philadelphia, sent him on an expedition to west Africa.

1856–1859: Explored the Ogooué and Gabon Rivers.

1861: Explorations and Adventures in Equatorial Africa.



Paul Belloni du Chaillu

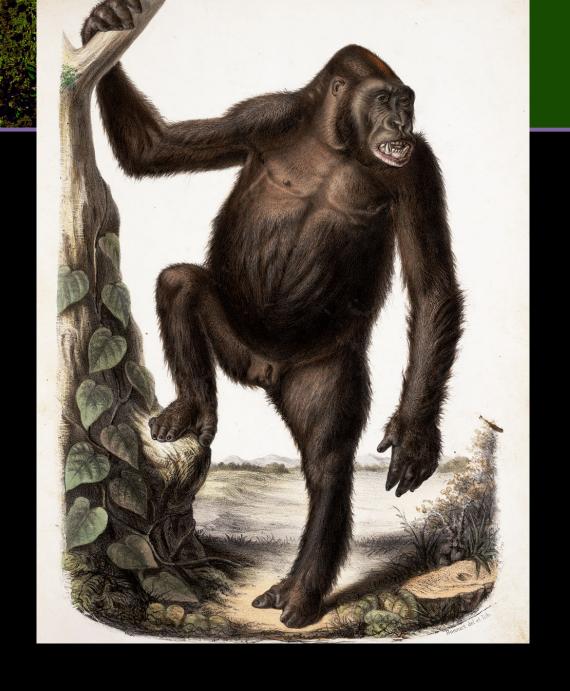
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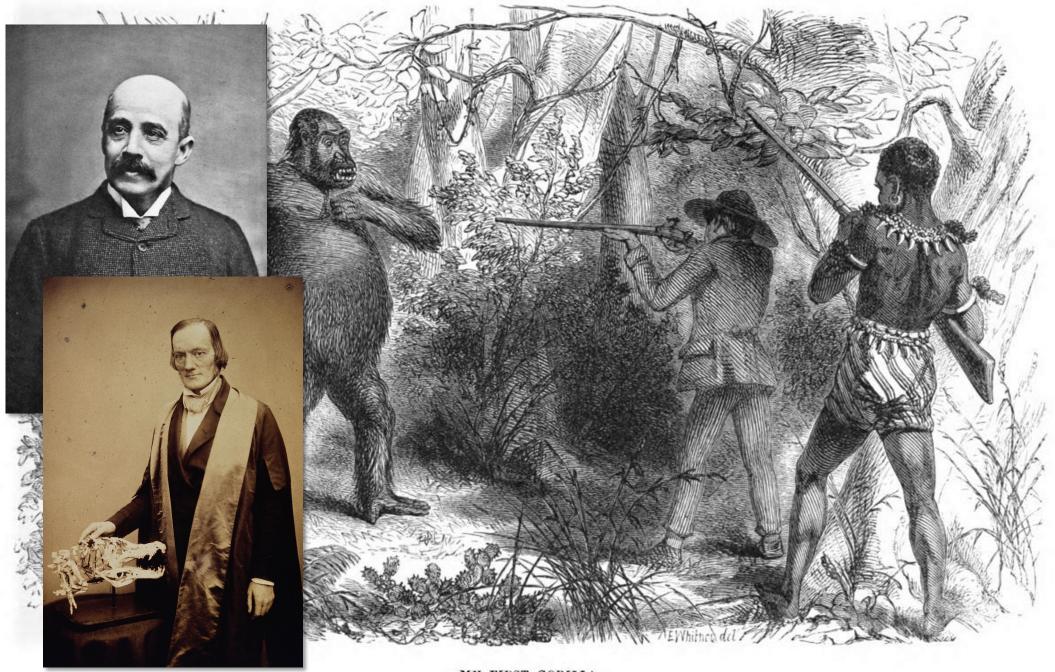
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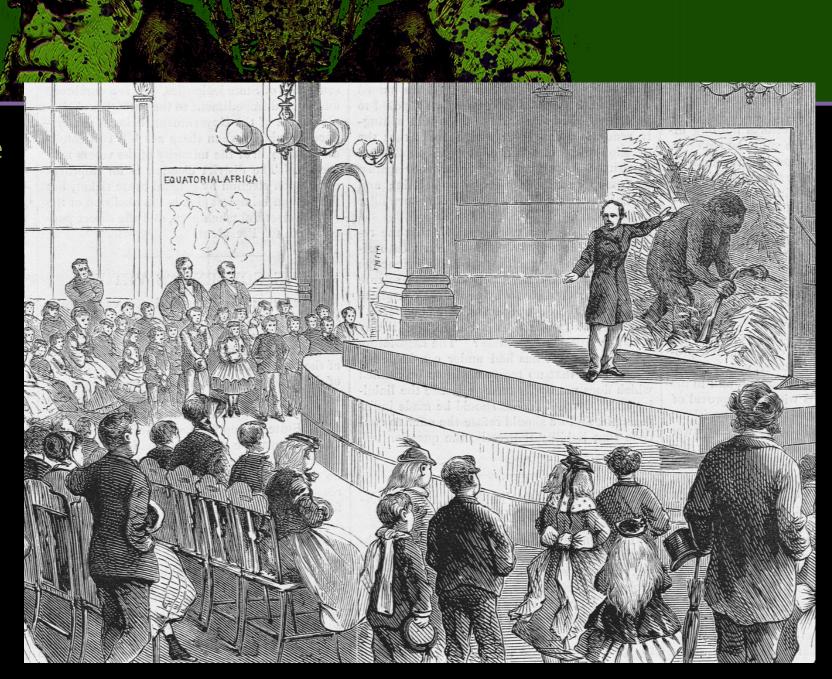


MY FIRST GORILLA.



Popular science

Du Chaillu lecturing to young people in Boston (*Harper's Weekly*, 6th March 1869).

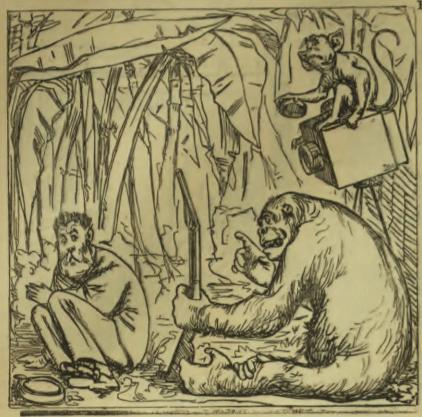


The Gorilla Sensation

June 1, 1861.]

PUNCH, OR THE LO

FAIR PLAY FOR PHOTOGRAPHY.

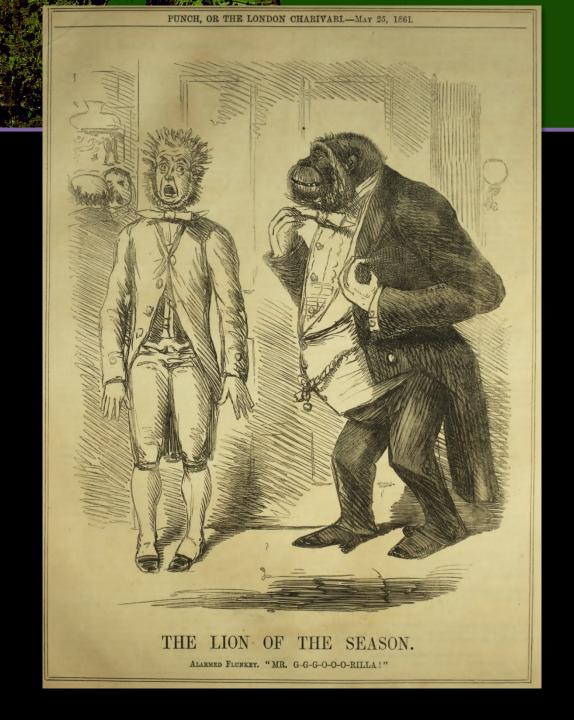


EEING what they weekly have before them in our pages, it is needless to remind innumerable readers Art in any shape or form is ever under the protection and the patronage of Punch. From the pictures "on the line 12 R.A. Exhibition, to the crayon caricawhich are covertly designed Mr. Punch's doorsteps, and wherewith

small artists decorate his newly-painted shutters, all works of Art are cherished and encouraged by his influence, and the interests of artists are watched over and secured.

Now, Mr. Punch has learned from certain of his photographic friends, including his friend, FREDERICK, Lord Chief Baron of England, that

The Gorilla Sensation



The Gorilla Sensation



AGITATED TAILOR (to foreign-looking gentleman), "Y-you're rather l-long in the arm, S-sir, b-b-but I'll d-d-do my b-b-best to fit you!"



The Gorilla Sensation

TONOII, OR THE LONDON CHARL

A GREAT TIME FOR IRELAND!

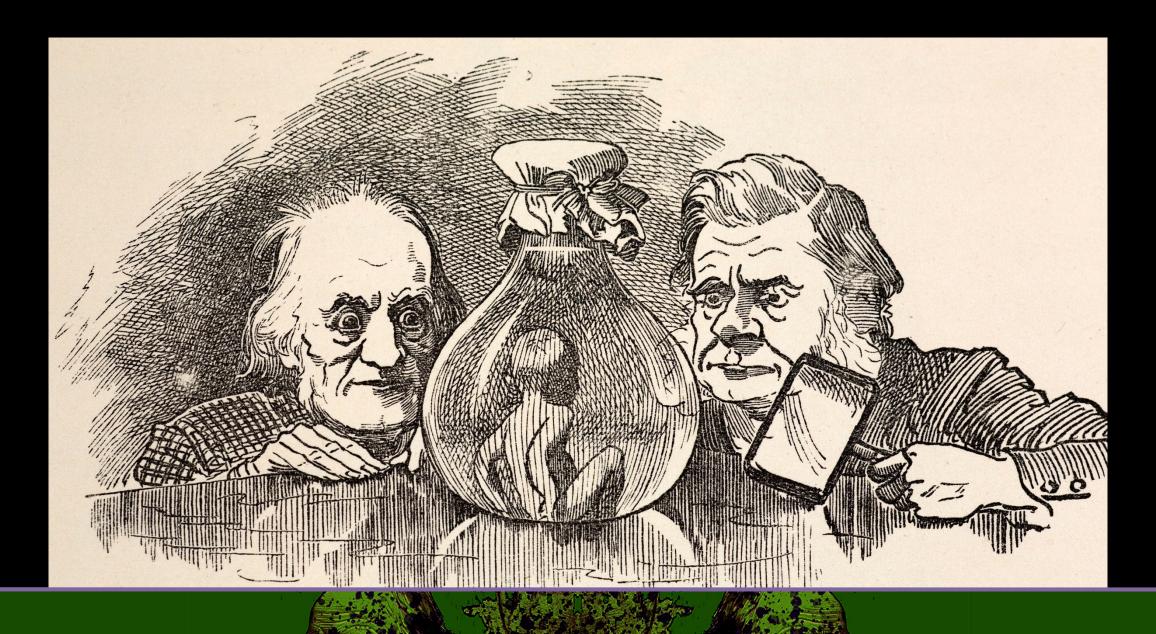
WE copy the following paragraph from an article in the Nation Irish newspaper, written in anticipation of a war between this country and America:—

"Yes, then will the forces of England find in their front such desperate men as crushed their ranks at Fontenoy to the cry of 'Remember Limerick.' Yes, the men crowbarred out of their homes in Ireland; the men oppressed, insulted, scoffed at, and, wherever they went, pursued by English slander, scorn, and hate—those men will be in the van of the fight, and then will wee come to England! And what of Ireland in this great time? What will Irishmen do when comes this supreme opportunity, the like of which can only come once in many ages? We can tell what they may do, what they will be able to do, if they act well their part as brave men,—they can, most certainly, establish the independence of Ireland."

And here is a portrait of the Author,



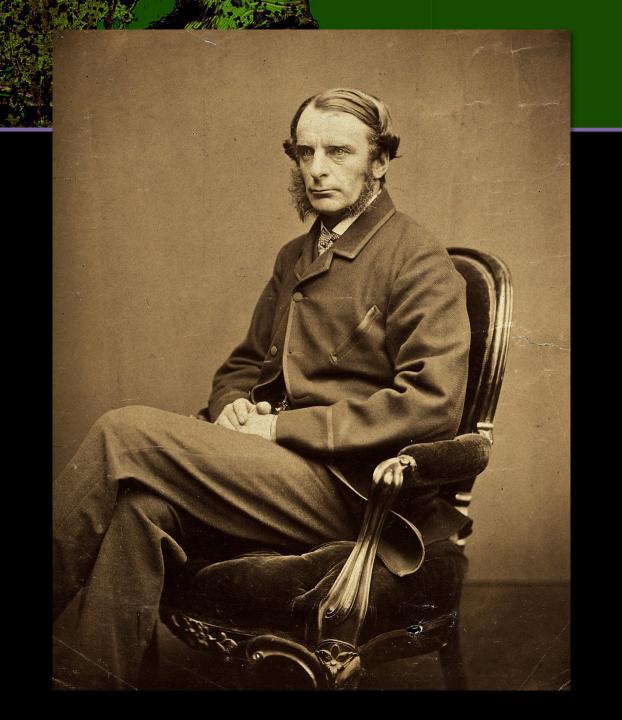
Mr. G-O'RILLA, THE YOUNG IRELAND PARTY, EXULTING OVER THE INSULT TO THE BRITISH FLAG. SHOULDN'T HE BE EXTINGUISHED AT ONCE?



The consolations of evolution?

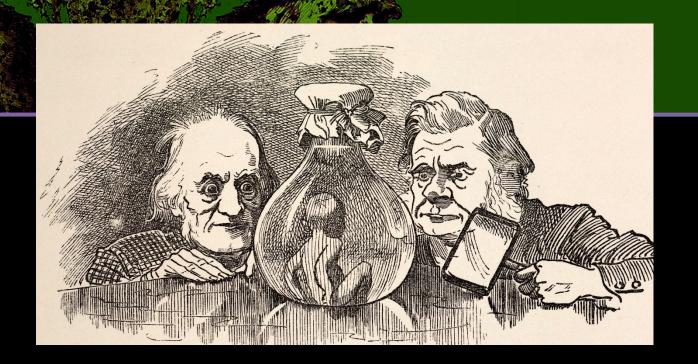
The Water Babies (1863)

Owen and Huxley's debate was satirised by the popular novelist, Charles Kingsley, in his children's book *The Water Babies*.



The Water Babies (1863)

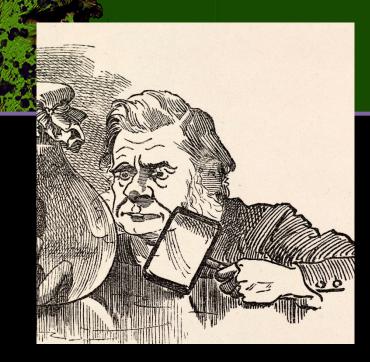
The narrator asserted that, if water babies really existed, one would have been caught, put in spirits, and perhaps "cut in half...and sent one to Professor Owen and one to Professor Huxley, to see what they would each say about it"...



The Water Babies (1863)

Professor Ptthmllnsprts ('Put them all in spirits'), the learned professor (a caricature of Huxley) had argued that apes humans have "hippopotamus majors" in their brains, "just as men have":

"Which was a shocking thing to say; for, if it were so, what would become of the faith, hope, and charity of immortal millions? You may think that there are other more important differences between you and an ape, such as being able to speak, and make machines, and know right from wrong, and say your prayers...



The Water Babies (1863)

"... but that is a child's fancy, my dear. Nothing is to be depended on but the great hippopotamus test. If you have a hippopotamus major in your brain, you are no ape...".



The Water Babies (1863)

Evolutionary fairy tale: Tom, a poor, chimney sweep, evolves from a dirty pagan into a good Christian.

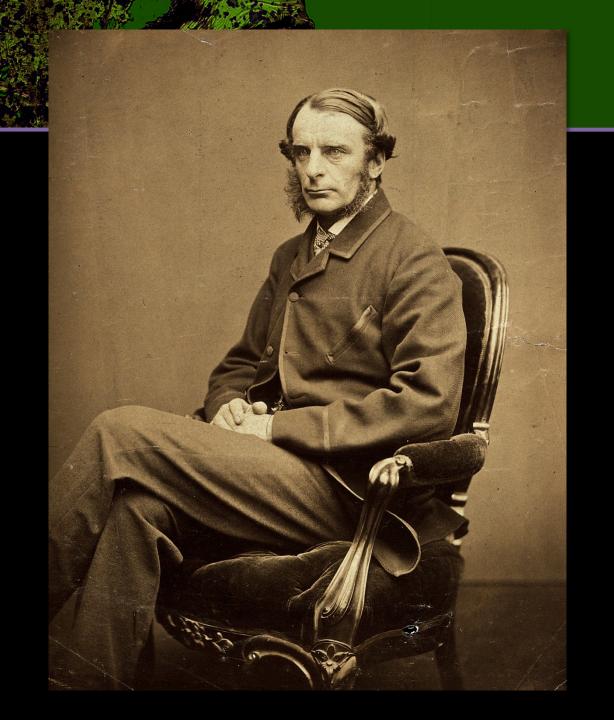
Kingsley interpreted evolution as a law of inevitable progress, from lower to ever-higher spiritual and moral states.



Kingsley and the Origin

Darwin sent Kingsley an advance copy.

Kingsley thanked Darwin, and commented that he had "gradually learnt to see that it is just as noble a conception of Deity, to believe that he created primal forms capable of self development into all forms...as to believe that He required a fresh act of intervention to supply the lacunas which he himself had made".



The Origin of Species

Darwin quoted Kingsley's words in the introduction to the second edition.

And made a small change to the book's conclusion:

THE ORIGIN OF SPECIES

BY MEANS OF NATURAL SELECTION,

OR THE

PRESERVATION OF FAVOURED RACES IN THE STRUGGLE FOR LIFE.

By CHARLES DARWIN, M.A.,

FELLOW OF THE ROYAL, GEOLOGICAL, LINNÆAN, ETC., SOCIETIES;
AUTHOR OF 'JOURNAL OF RESEARCHES DURING H. M. S. BEAGLE'S VOYAGE
ROUND THE WORLD.'

LONDON:
JOHN MURRAY, ALBEMARLE STREET.
1859.

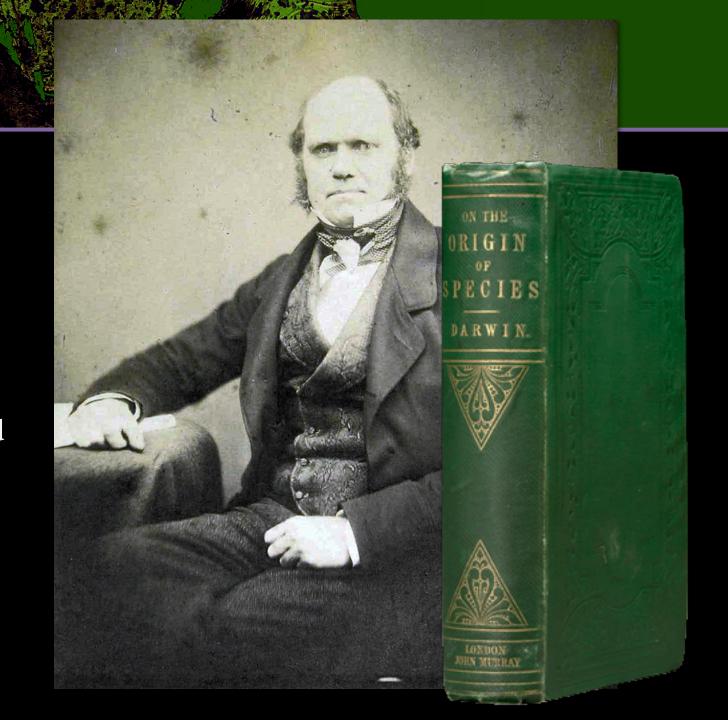
The right of Translation is reserved.

ditions of life, and from use and disuse; a Ratio of Increase so high as to lead to a Struggle for Life, and as a consequence to Natural Selection, entailing Divergence of Character and the Extinction of less-improved forms. Thus, from the war of nature, from famine and death, the most exalted object which we are capable of conceiving, namely, the production of the higher animals, directly follows. There is grandeur in this view of life, with its several powers, having been originally breathed into a few forms or into one; and that, whilst this planet has gone cycling on according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been, and are being, evolved.

different from each other, and dependent on each other in so complex a manner, have all been produced by laws acting around us. These laws, taken in the largest sense, being Growth with Reproduction; Inheritrnce which is almost implied by reproduction; Variability from the indirect and direct action of the external conditions of life, and from use and disuse; a Ratio of Increase so high as to lead to a Struggle for Life, and as a consequence to Natural Selection, entailing Divergence of Character and the Extinction of less-improved forms. Thus, from the war of nature, from famine and death, the most exalted object which we are capable of conceiving, namely, the production of the higher animals, directly follows. There is grandeur in this view of life, with its several powers, having been originally breathed by the Creator into a few forms or into one; and that, whilst this planet has gone cycling on according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been, and are being, evolved.

The consolations of evolution?

"When we reflect on this struggle, we may console ourselves with the full belief, that the war of nature is not incessant, that no fear is felt, that death is generally prompt, and that the vigorous, the healthy, and the happy survive and multiply".



Charles and Emma

1842: their third child, Mary, died just a few weeks after her birth.

1851: Annie died, just ten years old.

Their last child, Charles Waring, lived for less than two years.



"Have been, and are being, evolved..."

One the first reviews of the *Origin* appeared just days after the book itself.

The reviewer commented that "an unbroken, sure, though slow, living progress towards animal perfection is a delightful vision; natural and gradual optimism is a welcome fancy. What need of distinct creation?

If a monkey has become a man—what may not a man become".

THE ORIGIN OF SPECIES BY MEANS OF NATURAL SELECT ON THE FOR LIFE. PECIES By CHARLES DARWIN, M.A. AUTHOR OF 'JOURNAL OF RESEARCHES DURING H. M. S. BI LONDON: JOHN MURRAY, ALBEMARLE ST 1859. The right of Translation is reserved.