

# Scotchain – a Joint Block Company

## Refounding Scottish Civilisation for the Blockchain Age

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### A Proposal for

#### *The Fleming Collection*

Mr. James Knox

*Fleming-Wyfold Art Foundation*

in Association with

#### *The National Trust for Scotland*

Samuel Morrison Gallacher

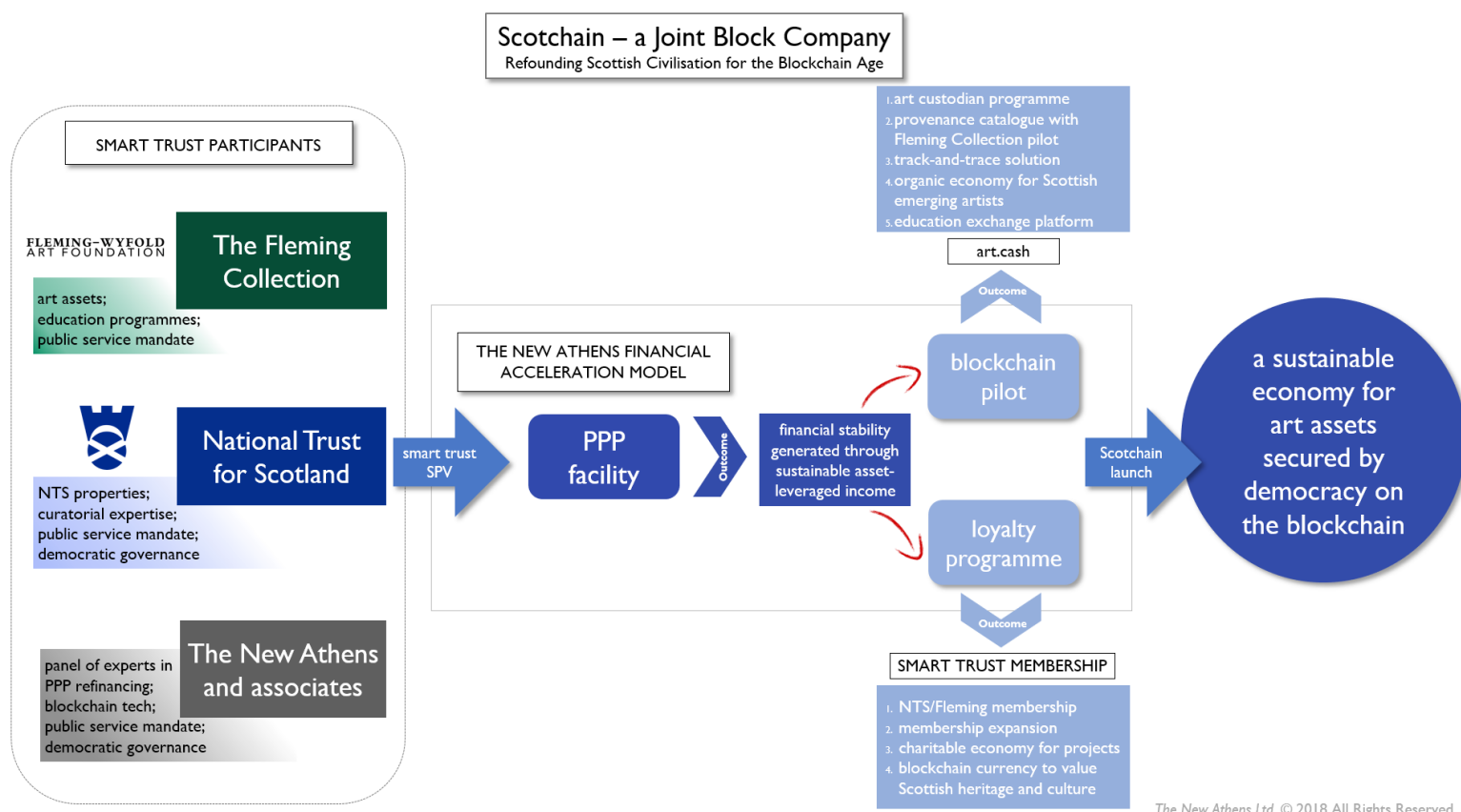
Prepared on Behalf of

*The New Athens* – a blockchain foundation

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## Scotchain: an outline proposal

*The Fleming Collection* has immense potential, not only to refound itself as a major art institution preserving and communicating the heritage of Scottish civilisation to the world, but to form the nucleus of a new renaissance of that civilisation in the oncoming Blockchain Age and the economy which will emerge out of it – combining all the strengths that make Scotland great: art and aesthetics, learning and philosophy, commerce and technological innovation. At *The New Athens* we have realised that the deep institutional roots *The Fleming-Wyfold Art Foundation* holds in private banking put it in an unique position to understand at this early stage in the genesis of the blockchain how to harness its transformative power to shape the future of art finance and beyond.

This document outlines a unique and exciting opportunity to advance the aligned interests of two illustrious Scottish cultural institutions towards a future of prosperity, innovation, and yet greater service of the public good with which they have been entrusted. *The New Athens* and associates have identified that by coming together under the banner of a blockchain economy for art assets (*art.cash*) and loyalty, engagement, and citizenship (the *Smart Trust*), *The Fleming-Wyfold Art Foundation* and *National Trust for Scotland* can, while strengthening their stewardship of Scottish civilisation with traditional financial models, shape and govern the future of that civilisation with the democratic power of blockchain technology. At *The New Athens* we need your help to instantiate our proofs of concept on large scale institutional projects, and see Scotland in its particular qualities of autonomy and cultivation as a kind of “Smartlab” to test and prove these new paradigms.

Both *The Collection* and *NTS*, emerging as they do from the tradition of The Scottish Enlightenment, understand these guiding principles and embody the same in their founding documents and civilising mission. To this end, *The New Athens*, as a blockchain foundation for the democratic safeguarding of art, was named for and inspired by the ambition of The Athens of the North. Our vision is that by combining the deep expertise in the best that has been thought and said in that first Scottish Enlightenment – from the aesthetics of Robert Adam, and the empiricism of David Hume and Adam Smith, to the enterprising, adventurous, yet highminded spirit of the Joint Stock Companies – we can together shape democratic technologies and institutions to become custodians of a new much overdue second Scottish Enlightenment for the Blockchain Age in the form of *Scotchain* – a Joint Block Company.

Widely reputed to be the finest private collection of Scottish art in existence – almost 1,000 oils and watercolours from 1770–present – the *Fleming Collection* was saved in 2000 for the public during the sale of the eponymous bank and held under a trust whose objectives instantiated those Scottish Enlightenment principles shared by *The New Athens*. After the unfortunate closure in 2015 of the collection's London headquarters at 13 Berkeley Street, it is clear that the first and most pressing priority is to get the *Collection* out of storage, back on public display, and financially independent so that it can fulfil the objectives of the *Fleming-Wyfold Foundation*. *The Collection* has great potential, first as an asset to seed the revival of its own fortunes, then as an aligned institutional partner toward *The New Athens*' ambitions to build a sustainable, organic, autonomous economy for art on the blockchain, guaranteed by direct democracy. *The Fleming's* objectives – of education and the funding of bursaries, the promotion and mentoring of Scottish emerging artists, the loan and exhibition of work to place them in the public eye and consciousness, and the place of art as cultural diplomacy – are all those which *The New Athens* shares and seeks to augment with blockchain integration.

## financial acceleration model

The first objective is to stabilise the future of *The Fleming Collection*. We propose a strong foundation in traditional asset finance models to allow the *Collection* to be put to work to generate its own revenue in order to regain its autonomy and self-sustain its future in financial terms. Within our group of expert advisers and associates *The New Athens* has access to a *PPP* facility, which can generate the revenue required to refound the *Collection* on a firm basis. We propose such a joint venture be structured under an SPV holding the asset in trust for the public good and in accordance with the initial objectives of the *Fleming-Wyfold Foundation*, while expanding its ambition for the future.

Once this process is complete we can harness the unique contribution of *The New Athens* to augment that stability – its panel of advisors and experts drawn from the many fields that we know will be key to sustainable innovation in a new economy built around blockchain technology. Our in house general counsel, Mr. James Bogle, barrister, of *10 King's Bench Walk, Inner Temple*, is working closely with us to build the world's first *Smart Trust* to underpin democratic governance on the blockchain. We very much admire the governance structure of the *NTS* – a direct democracy of a constituency 360,000-strong in support of art, heritage, and the public good. Such a large constituency committed to stewardship of large collective assets would form the ideal pilot and seed for voting remotely on the blockchain. The *Smart Trust* is key to build our notion that the public good should be safeguarded by the will of the people and that art and heritage – our shared patrimony – should be held in trust by all for the benefit of all.



## art.cash

In terms of its cultural heritage, *The Fleming Collection* finds a natural home in the network of historic properties under the stewardship of the *National Trust of Scotland*, 270 of which are listed. The *Collection* will also benefit from the curatorial expertise of the *NTS* across its collections of over 300,000 historic objects, including 3,000 paintings, set before an audience of 3 million visitors annually. We know that the *NTS* has set an objective, that "between 2018 and 2023 we are investing £60 million in conserving our properties and bringing about new innovations to enhance visitor experiences and present Scotland's stories in new and appealing ways." At *The New Athens* we are designing such innovations.

*The New Athens* is committed to building truly democratic architecture on the blockchain from foundation upwards. With *art.cash* we begin with the participants in that democracy – its citizens – all of whom give value to the blockchain and receive the appropriate value in return, guaranteed and regulated by a democracy of their peers.

## The New Athens

*The New Athens* is a blockchain institute, founded in London in 2017. At *The New Athens* we realise that the blockchain revolution, although innovative in terms of technology, is not unprecedented in terms of its function in our civilisation. In the republic of ancient Athens – a direct democracy – and in its carefully balanced civic institutions we find a model for the ambitions and for the scope of the blockchain as a technological vehicle to arrive at truth, guarantee value, and enable fair exchange among peers. In 2018 the blockchain as an industry and as a technology needs maturity, stability, and a vision of the public good to emerge from the adolescent gold rush stage that has characterised its progress in 2016–7. At *The New Athens* we are committed to that ambition and have the will to bring the blockchain to the world in tangible applications.

We live in a low-trust environment. This is the great problem which holds back collective human flourishing. With the advent of the blockchain revolution we have begun to see a glimpse of the immense wellspring of creativity that is locked away behind untrustworthy, inefficient, opaque, and corrupt information systems and we are now able to provide a solution to this previously intractable problem. We can now re-engineer concepts of trust, honour, and truth, which in our



civil, political, and financial lives we find sorely lacking. Correctly calibrated, the blockchain harnesses the power of incentive to bend human behaviour towards the public good. The blockchain rewards enlightened self-interest with new forms of value. But the blockchain must be guaranteed by democratic republican institutions which secure the value and the ends we share.

'Ruskin said: "Great nations write their autobiographies in three manuscripts: the book of their deeds, the book of their words, and the book of their art. Not one of these books can be understood unless we read the two others, but of the three the only trustworthy one is the last." On the whole, I think this is true. If I had to say which was telling the truth about society: a speech by a minister of housing, or the actual buildings put up in his time, I should believe the latter.'

– Kenneth Clark, *Civilisation, A Personal View*.

Our art is both a record of our history and a prisoner of it. Clark, the great art historian, identifies this tension between what art says – which speaks directly for itself in a universal language, even when written and spoken languages are long forgotten – and what is said about art, which has been compromised by the immense temptation to profit by misinformation. This dichotomy is nowhere more visible than in today's art market where *deeds* do not yet exist, *words* are cheap and untrustworthy, and *art* is assigned value without sure guarantees of authenticity.

The book of our art – the vessel of our civilisation, and our shared heritage – deserves to be written faithfully to the best of our collective ability, not just for our own sakes but for that of posterity and of the public good. At *The New Athens*, we are for the first time applying the power of blockchain technology to this problem – to record our history reliably and indelibly, safeguarded by democracy.

## the economic problem – the value of art

Art has always had currency – as a store of value over centuries – but now with *art.cash* art has a currency of its own, translating cash into art and art into cash interchangeably, seamlessly, and instantaneously on the blockchain – transforming art into a medium of exchange. Like cash art is a portable, tangible asset held in discrete units which can be exchanged anonymously peer-to-peer. In its appreciation as a store of value it outperforms other assets over time, but art is the most illiquid of assets which due to a lack of trust has never had the financial infrastructure around it – deeds, a property registry, a free market of provenance – to allow art to be commoditised and traded against financial instruments: mortgages, bonds, securities, derivatives, futures. *art.cash* provides a means to commoditise art.

Despite being worth \$2tn<sup>1</sup>, the art market is crippled by a lack of standard financial products backed by a commodity value correctly to price art asset value:

- we cannot buy futures contracts in the 10-year bond yield of the oeuvre of Van Gogh;
- nation states cannot issue gilt edged bonds against their national art collections to fund Smart Cities projects;
- working artists cannot issue shares in their work to fund their career development;
- art collectors who are asset rich and cash poor cannot mortgage their art to release equity value from their tangible asset holdings while those assets remain in their possession rather

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<sup>1</sup> Deloitte: *Art & Finance Report*, 2017.

than being sold on the auctioneer's block or locked away in a bank vault held against a safe keeping receipt;

- museums do not have enough space to exhibit all their holdings to the public or lend them with the confidence that they will be returned.

The lack of these financial products all derive from a lack of a bonded commodity price for art. Financial products need a standardised base layer of reliability in price and quality to operate – a basis grade – as with barrels of oil and similar commodities which may be traded interchangeably. Art gains such reliability through provenance – the certification of its authenticity and hence verification of its capacity as a store of value. But due to a lack of trust, the currency of that authenticity is low and cheap. Questions of provenance, audit trail of previous owners, authenticity, legitimacy of sale, identification and flagging of forgeries and fakes, unlicensed copies, and stolen goods all combine to make the art industry (and especially the secondary market) low-trust and hence inefficient for all parties involved in the supply chain.

As a store of value art has outperformed all other asset classes over centuries, but due to its primitive financial infrastructure, it is also the most illiquid of all asset classes. The story of art since 2008 is not dissimilar to that of bitcoin in that, along with gold, bitcoin and art have both proven worthwhile investments in reaction to the international economic crisis. Art is the portable, tangible, noncommodified asset class of choice to hedge against collapsing economies and turbulent markets. Today art weathers the storm as a store of value, remaining afloat for the long haul on the seas of uncertainty.

But art can only be mine if my property right to it is legitimate. If I purchase a fake, a forgery, an unlicensed copy, or stolen goods, then my title is void and my investment worthless. If the appraisal is incorrect or disputed, my costs increase exponentially. My ship sinks. That art asset value is more firmly locked into the object than comparable tangible asset classes, because it does not have that commodity base layer which grants liquidity. It is easier to sell a house than the art in it, because land in developed nations has a robust functioning deed and registry conveyancing system to provide trust – confidence in buyers and sellers: that the land exists and is owned by the seller, and that the buyer has the funds to execute the transaction. Art has no such registry or deed system, which *art.cash* is pioneering, modelled on land registries, with its blockchain democratic provenance registry, on-chain escrow, and smart contract deed exchange. Without a registry, the current legacy system results in inefficiencies, increased costs, and the enabling of fraud.

The custodianship of art – the common patrimony of all humanity – has for too long been the preserve of an industry group which tend to call themselves 'the art world'. The analogy in itself – of an industry being a closed planet – a sphere with its own ecosystem, uncommunicative with what lies beyond it – is indicative of the fundamental problem: a lack of trust and transparency to the wider world – financial and cultural. Art has for too long been dominated by a financial illiteracy whose argument is that there cannot be a commodity price for art because there is an "aesthetic problem" standing in the way. Because one potential buyer may like a work of art and another loathe it based on differences in taste, they cannot arrive at a reasonable value for the work that any buyer would accept, because their willingness to pay is different, clouded as they are by their subjective aesthetic judgments – their preferences.

## a direct democratic republic of art

The blockchain is truly revolutionary in that it brings democracy to fields in which we did not have a concept of democracy before – direct democracy, by the people and for the people. There was no concept of democratic money before bitcoin, only a series of fiat currencies issued coercively as legal tender in a territory controlled by a “trusted third party” – in this case a central bank attached to a national government – which was really a monopoly interest with no reasonable challenge to market dominance. Now, with bitcoin and the digital cash revolution, that monopoly system has been broken, and the so-called trust in the third party arbiter revealed to be the coercive fiction it always was – it is not trust when there is no alternative. On the blockchain the participants in the network both look out for one another, and look at one another to make sure they are all dealing fairly, validating one another’s value in a democratic spirit of mutual self-regulation.

Blockchains are much more reliable than any person or committee because their promises cannot be broken simply because a rump decides that political-economic expediency overrides the parameters under which trust is exchanged. The power of the blockchain lies in that it is ‘not a system of proof by appeal to authority or to its author, but a system of independent and neutral mathematical proof which stands on its own.’ The blockchain allows us to do democracy – everywhere – and, with the beauty of simplicity, solves for the first time the age-old problem of *quis custodiet ipsos custodes* – who watches the watchers. The answer? Everyone.

Since their unmooring from the anchors of the gold standard in the mid-20th century, governments and central banks have allowed an evolutionary niche to lie open in the currency space. Bitcoin moved to fill it. Bitcoin is ‘an electronic payment system based on cryptographic proof instead of trust allowing any two willing parties to transact directly with each other without the need for a trusted third party.’<sup>2</sup> Central banks proved unreliable guarantors of the currencies they issue in 2008, because they prioritised objectives of political economy over that of trust in their currencies. Quantitative easing in the trillions of dollars propped up the ailing banking sector but punished all other holders of those currencies through no fault of their own. The blockchain revolution was enabled by the advent of technologists becoming sufficiently confident that the internet hosted enough bandwidth to guarantee their transactions in such a way that they could not be corrupted – a distributed ledger. The proof is in the price when it comes to trust in the new economy. The first distributed ledger was a currency, bitcoin. The best analogue is email and the internet. Bitcoin is to the blockchain as email was to the internet – the first application which changed the world – in this case ‘programmable money’. Where bitcoin represents a digital gold standard and digital cash, the scope of the blockchain is much wider. The blockchain can find quantifiable value above zero for every action, inaction, and unit of data; every quality may be quantified and all be made interchangeable with one another.

*art.cash* is the first real world application of the blockchain that demonstrates its power to effect change in a theory of value, applying this logic to art. Art appraisal represents a set of information bottlenecks and proprietary knowledge silos which prevent the free and fair exchange of provenance data on the value and authenticity of art. Before the blockchain in any number of fields we the people had no alternative but to place our trust in the authority of so-called “trusted third parties”. That authority, placed inside institutional power structures and professionalised, inevitably becomes a matter of credentials, and loses its connection to democratic oversight and searching, impartial audit. In art appraisal this led to few independent data points as to the

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<sup>2</sup> Satoshi Nakamoto – *Bitcoin: A Peer-to-Peer Electronic Cash System* (31.10.08)

provenance of artworks and no intelligible audit trail of past success or failure on the part of “art experts”. Conflicts of interest arise when appraisers are employees or contractees to parties in transactions such as auction houses and foundations. Often it is only the credentialised “authorities” who gain significant attention in debates as to art provenance, but there is a much wider forum of voices which are shut out of the “art world” but whose appraisals stand or fall on the evidence, not on preconceived notions of expertise. Authenticity is prized in art, but provenance is bitterly fought over and often discredited. This process is needlessly adversarial, expensive, and represents a high barrier to trade.

Democratic provenance, floated on the blockchain, can solve this problem. *art.cash* democratic provenance system provides the art industry with a single forum to debate and verify by consensus questions of provenance and an oracle as to the value and authenticity of art standardised across a wide field of potential appraisers, each rewarded for their useful labour with a cryptocurrency block reward, and each floating their own reputation for success or failure in appraisal on a democratic reputation system. Once *art.cash* can derive big data from the aesthetic preferences of a large constituency of art market participants judging the value of an art work and their willingness to pay, the “aesthetic problem” of the legacy art industry will disappear. With big data comes the ability to draw a normal distribution curve for the price of that work. The median, adjusted against the reputation of the analysts, forms *art.cash* commodity price for that artwork. Each artwork can have a different price, but each can be the commodity price of that artwork, derived from the same methodology and auditable in real time on-chain.

Further, smart contracts allow for unsurpassed transparency and security in transactions – two qualities which on the blockchain are combined when before they were competing priorities. Each party – buyer, seller, intermediaries, legal and financial professionals – must sign off that they have fulfilled their responsibilities and gained their compensation, each clause in the contract reviewed by the appropriate participants. Unless and until all clauses are met, the computer program cannot execute, and hence the property deed cannot transfer between counterparties; a backstop against any party emerging from the transaction unsatisfied. *art.cash* presents the opportunity for those who care about the history and future of art and artists to come together democratically to build a new economy of art. *art.cash* harnesses the potential for mutual self-regulation of the art industry on the blockchain, and provides a secure, gold standard certification system by which artworks are authenticated, exchanged, tracked and traced, securitised, and insured, regulated by deed and logged against an immutable and incorruptible registry.

For all these reasons we at *The New Athens* highly recommend such a proposal as *Scotchain* to safeguard the assets of the *Collection* for the future, details of which we would be glad to discuss further. Beyond the salvage of the *Collection* we plan to marry the public service objectives of Scottish art and heritage through *NTS* to the immense power of the blockchain to transform the human spirit and activate the imagination through the medium of direct democratic governance. Please contact us for further technical understanding of what we are building at *The New Athens* – notably the world’s first art asset-backed cryptocurrency, *art.cash* – the smart trust governance architecture, and our innovative education programme on the blockchain.

Yours sincerely,

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