#### **Science Fiction Book Club**

### Interview with Michael Benson and Robert Godwin May 2018

On the panel is Michael Benson whose book "Space Odyssey: Stanley Kubrick, Arthur C. Clarke, and the Making of a Masterpiece" just came out last month. In addition to Space Odyssey he has written such books as Cosmigraphics: Picturing Space Through Time.

The other member of the panel is Robert Godwin who in 2013 he co-authored a biography of Arthur C. Clarke with Fred Clarke, brother of Arthur, "Arthur C. Clarke: A Life Remembered." And in 2014, he co-authored "2001 The Heritage and Legacy of the Space Odyssey" with Frederick I. Ordway III, (who was technical adviser to Stanley Kubrick for the film 2001 A Space Odyssey).

François Peneaud: How did Arthur C. Clarke view 2001, A Space Odyssey in relation to his other works? Did he view it differently since it was a project co-created with Stanley Kubrick?

Michael Benson: I had the privilege of spending a good deal of time with Arthur in the early oughts, and there was never any indication of anything other than pride about the work he did with Stanley Kubrick from 1964-1968 on 2001: A Space Odyssey. During my research on my book I did uncover substantial evidence, however, from multiple sources about the extent of Arthur's financial distress for much of that time, which in turn fed into extreme frustration with Kubrick over the latter's not permitting publication of the novel until after the film came out. This was somewhat compounded by Kubrick's lack of candor on the subject – he kept on saying he didn't have time to read the book closely and make suggestions, and he didn't want it coming out without his having made them. This was during the period when both of their names were supposed to be on the cover. Kubrick of course was only partly fibbing – he really didn't have time, he was logging 15-18 hour days at the studio – but my sources, for example Kubrick's assistant Tony Frewin, have confirmed to me that, though he'd originally said otherwise in the early verbal agreement between the two authors of the 2001 narrative, Kubrick had no intention of letting the book come out before the film. So during the making of the film, there was a good deal of tension, which Arthur usually attempted to mask, but which at one point boiled over and led him to seriously consider a lawsuit against Kubrick. This all has to be taken against a backdrop, however, of immense mutual respect between them.

I think in the end Arthur viewed 2001 differently from his other work both because it really was a collaborative venture -- despite the fact that in the end only his name was on the cover of the novel -- and also because, although there's no doubt that though he was already a well-known name in some circles, 2001 catapulted Arthur to international fame. And, it has to be said, he made a fortune as well. So he was well aware that it was a breakthrough project for him. He was also keenly aware of the key role Kubrick had played. At one point later in his life, Arthur referred to Stanley as "Perhaps the most intelligent person I've ever met." And Kubrick reciprocated in his way. So clearly their respect for each other survived the tensions that grew during production.

**Robert Godwin:** I think 2001 was a bit of a mixed blessing for Arthur. He certainly made plenty of money from it, eventually, but it was a double-edged sword. He was not used to cooperating on his fiction (at

that point in his career). He had cooperated in early life as an editor, but if you look at how often he put his name alongside someone else's before the 1990s it's extremely rare. As Michael's latest book makes quite clear there were some tough times for Arthur during the creation of that movie and book. Not least his lack of income which Kubrick had tied up by not allowing him to release the book until the movie was well and truly done. This caused all kinds of problems for Arthur's agent Scott Meredith. Then there was of course the fact that the entire second act of the movie/screenplay was written in the 1940s as The Sentinel of Eternity. So the seed of that part had been written a long time before. Then there was all the mountains of "extra" work he undertook, writing press pieces for MGM to promote the movie. All in all it was an entirely different animal to his previous experiences.

## François Peneaud: Did being gay play a part in his writing career, whether positively or negatively?

Michael Benson: It wasn't so much being gay that played a negative role in Arthur's life -- at least from an outsider's perspective -- as it was the nature of his relationships with other men. Arthur had a distinct tendency to allow himself to become dominated by strong-willed partners, and in effect carried their water and became their principle source of income. So for example the reason why Arthur was under such financial distress throughout the production of 2001 was because everything he made -- or almost everything -- went to his partner at the time, Mike Wilson. I base this on Arthur's own correspondence, among other sources. And BTW this drove his UK family to distraction, including his brother Fred, but there was really nothing anybody could do about it, because it was Arthur's choice. But I have some rather explicit and alarmed quotes from Arthur's friend Roger Caras about the extent that he was taken advantage of. Roger, of course, was also Kubrick's close associate for much of the making of 2001, and the Vice President of his two production companies.

Robert Godwin: Arthur very carefully protected his personal sexual preferences. When he was asked about whether he was gay he famously joked that he had always been a happy person. He had lived in an assortment of all-male environments in his youth, either in the RAF during the war or hanging out with the close-knit group of space specialists in the BIS or the members of the Science Fiction Association. Of course back then it was illegal to be gay in Britain, even Alan Turing paid the price for that and he was both famous and important to the war effort. So I think it was part of his life that he had kept this to himself. In fact he never admitted it publicly right up until his death. This must have been difficult for not only him but also his closest friends. There was a time when his close male friends were "accused" (and I use that word intentionally because that was the way it was used at the time) of also being his gay partners. But most of them were in heterosexual marriages with children. Then of course there was the outrageous scandal cooked up by a British tabloid that made the disgraceful allegation that because he was gay he was also a child molester. This must have been one of the worst times of his life. He was cleared of these spurious charges. As far as his writing goes, Arthur was influenced (most) by the famed British philosopher Olaf Stapledon at a very early age. If you read Stapledon's Last and First Men, or Starmaker, you will get a sense of how expansive Arthur's perception of the universe was. Human gender biases never rise above the level of a tiny irrelevant footnote in such a holistic view of the universe.

## Richard Whyte: How do you think his post-polio syndrome affected his work after being diagnosed in 1988?

Robert Godwin: By the time Arthur was diagnosed as ill with post-polio syndrome he had already had a significant accident when he was concussed during the early 1960s (I think that was when it happened.) He was very seriously injured and for the longest time he couldn't walk. When the polio diagnosis came into the picture it was never clear whether it was the concussion. Regardless, his mobility was impaired for a while and so when things got worse as he got older he had already experienced some of the problems associated with immobility. Of course he didn't let that stop him from scuba-diving which curiously was less problematic than walking. As far as impacting his story-telling I think the only real impact seems to have been him slowing down a bit. More of his stories became partnerships with other writers. Of course that makes it much harder to know whether his imagination diminished because you don't know who wrote what.

# Richard Whyte: How did he get to be the only non-American member of the 'Big Three'? How did he get on with the other two?

Michael Benson: Clarke started off as an enthusiastic and even messianic proponent of space travel and a rocket enthusiast, and wrote for UK fanzines on that subject before the Second World War and then concurrently with his first attempts at writing fiction. As to fiction, he was in a way a younger brother to such seminal UK science fiction writers as H. G. Wells and Olaf Stapleton, both of whom influenced him immensely. The forefathers of Science Fiction, after all, were British and French: Wells and Jules Verne. As to how he got to be the only non-American member, another way to study that question might be to observe that Heinlein was of German extraction and spent most of his time on the West Coast, Asimov like Stanley Kubrick was a New York Jewish intellectual, and Arthur was a native of Somerset and retained that accent throughout his many years in Sri Lanka. So they had regional identities as well. What united them was the English language and a certain sensibility, though Clarke and Heinlein famously had a public falling out when Clarke dared to criticize Reagan's Star Wars initiative. Heinlein was rather right wing, in a libertarian kind of way. He thought Clarke had no business criticizing what even then was very obviously destined to be a huge waste of money and resources.

Robert Godwin: Arthur was very good friends with Asimov. How he became the only non-American is a curious way of looking at it. Modern science fiction really took off in America thanks to people like Gernsback and his competitors. Without getting into the long history of SF (Verne, Wells, Lucian, Shelley etc) it was the pulp era of the 1920s-1940s which began the phenomenon that continues to this day with things like Star Wars. All of the big three came from very different backgrounds. Asimov, a Russian-Jewish immigrant who had barely ever left the boroughs of New York, Clarke the British "boffin" who never left England until 1950 when he was almost 40. Heinlein, the American mid-westerner outdoorsman. They couldn't have easily been more different. All brought to the American public by the pulps. John Campbell, editor of Astounding in the 1940s published Asimov, Heinlein and Clarke (albeit only a letter) within months of each other. Clarke was a scientist so he rarely let anyone slip an inaccurate statement into the press about space or physics. No doubt this was why Campbell published his letters. Asimov of course was a polymath rarely seen before or since and Heinlein was just a damn

good writer. Both Clarke and Asimov were somewhat jealous of Heinlein's gift. Also remember that Clarke was receiving those pulps from America via packages sent to him during the war by Willy Ley, the German rocketeer in New York. Arthur had also been close friends with Walter Gillings in England who published the first truly professional British SF pulp, which gave Arthur a forum for both his science musings and SF stories. These people all corresponded through what was known as "fandom". The smallest arguments in the fanzines could easily become trans-Atlantic discussions. So the community was, although separated by thousands of miles, a small one. Later in life Arthur became very close with Asimov, famously introducing Asimov during his one and only trip to England, whereas he had a tense relationship with Heinlein brought about by different perspectives on Politics.

Richard Whyte: Why did he choose to make the (terrific) 'Mysterious World' series in the late 1970s, when he seemed to be at the peak of his powers as a writer?

**Robert Godwin:** I don't know the definitive answer to this but my guess would be a) because they paid him well and b) because it interested him c) he didn't have to travel to do his part, i.e. he didn't leave his beloved Sri Lanka. He had learned at a very early age to not dismiss something because someone else said it was impossible (in fact it became one of his famous laws). SO although there was some pretty daft stuff in that show, he would have given it a hearing, all the while realizing that it was entertaining and commercially profitable.

SFBC Member: So many of Clarke's predictions about technology were eerily accurate, from communications satellites to personal computing. But his grandest prediction, that of commercial human space flight, sadly has not come to pass. What has stopped it from happening?

Michael Benson: Arthur's famous 1945 paper on communications satellites, interestingly enough, combined a number of ideas that were already in circulation, something he readily admitted. For example the idea of geosynchronous telecommunications relays derived from George Smith's *Venus Equilateral* short stories, though Smith positioned his communications space station at the L4 Lagrangian point between Earth and Venus. He combined this with Herman Potocnik Noordung's idea, published in 1928, that a space station be positioned in geosynchronous orbit – BTW, a beautifully designed wheel-shaped station designed to produce artificial gravity, an idea that Wernher von Braun later promulgated, uncredited, in his Walt Disney TV appearances in the 1950's. Which then became a kind of mid-century paradigm for how a space station should look, as most famously presented in *2001: A Space Odyssey*. Noordung in turn took the idea of geosynchronous orbit as an ideal position for a space station from the father of space flight, Konstantin Tsiolkovsky. So Arthur's eerie accuracy had many fathers! Which is not to take away from his achievement: his paper for Wireless World was a magisterial synthesis, and rightfully has its place in the history of technology and spaceflight.

As to commercial spaceflight, actually we're seeing how that's coming to he forefront right now, with Space X and Blue Origin and so forth. I myself have recently been invited to be part of the European Sanctuary Project [http://www.sanctuaryproject.eu/], which will be placing a time capsule on the Moon late next year, as part of the German PTScientists mission to land two rovers there [http://ptscientists.com/]. This will be on Taurus-Littrow, near the Apollo 17 landing site, which they will

cautiously and respectfully drive over to visit. This is a very serious and credible private lunar voyage advised by the European Space Agency, and backed by Audi, Vodaphone, Red Bull Media House, and others. It has its origin in the Lunar X Prize. We're going to land a cargo including the complete male and female human genomes, as well as examples of our cultural heritage, on sapphire discs attached to the landing stage.

Robert Godwin: Politics. Arthur was as surprised as anyone when the V-2's started raining down on London and Holland. He and his friends knew it was theoretically possible to get into space but they were astonished when they realized it was going to happen in their lifetime. Their optimism, embodied in the BIS moonship of 1937-39, had been doused by the enormous cost of spaceflight. After the war governments finally twigged to the fact that if you allow something into your airspace that is moving hypersonically you have a real security problem. Add to that the realization that nuclear weapons could be made small enough to fit onto a rocket and suddenly the politicians and military took control. Rockets are dangerous and rockets with nukes are *really* dangerous. It became expedient to tie up the people who know how to build them. Everything from incarcerating von Braun to employing the unemployed Soviet scientists at the end of the Cold War. No one could have predicted how the nuclear game would play out. It's still going on today and so even guys like Musk and Bezos are very carefully monitored by their government. The technology is still so expensive and complicated that most private concerns don't see enough of a return on their investment to justify starting up their own program. It's cheaper to buy a ride with someone else.

Martin Dudley: It seems to me that in the time up to around the fifties there it was still possible to be a credible polymath "boffin", especially in Britain. What was Clarke's early and family life like, and possibly education, that led him to be both a respected scientist and for his ideas to spill over into SF (Or vice versa)?

Robert Godwin: Arthur was educated in a grammar school in the south west of England. At that time there were no highways (motorways) so it was pretty remote. His father served as an engineer and his brother also became an engineer during the war. They grew up near the ocean, actually within eyesight of where I grew up, so I'm intimately familiar with the environment. It's a beautiful part of England near to the Severn River/Bristol Channel. Arthur played with engineering toys like Meccano (similar to American Erector set) and owned his own telescope. He lived on a farm and cycled to and from school. After school he would cycle to the beach (same as I did) where you could experience one of the largest tidal bores in the world. When the tide went out where I lived you could see a mile of sand, when it came in it could create waves that would throw fish and seaweed across the coastal road onto the roofs of the houses! The beaches were chock-full of fossils and Arthur (and I) would collect them. You could also see the comings and goings of huge amounts of sea traffic in and out of Cardiff and Bristol. At night the skies could be scoured clean by the winds off the Atlantic and night viewing of the stars was amazing. This certainly gave anyone living there a perspective on the natural world and the bigger world at large. Later when Arthur started to make friends with other SF fans through the fanzines, he would ride the trains from one end of the country to the other to spend an afternoon with like-minded individuals like the early founders of the BIS. When he got one of his first jobs in London it was to create

abstracts of scientific papers. A little bit like Einstein in the patent office, he absorbed huge amounts of information about how the world worked.

Heather Prince: I have heard it said that Clarke's writings had a warmth about them that many of his contemporaries lacked in their work. Do you agree with this? And if so do you feel this is a characteristic that came out in his own personality or just in his work?

Robert Godwin: That's a tough question because I'm not sure I agree with its premise entirely. All of the "Big Three" were criticized for not taking much time to develop their characters, preferring to concentrate on the themes rather than the personalities. This seems unfair to me. Asimov famously introduced Susan Calvin to his robot stories as the brilliant roboticist protagonist. In the 1940s this was quite a departure from what you might have found in many other types of popular literature. Heinlein was extremely good at characterizations, whereas Arthur seemed to be much more wrapped up in the enormous questions underlying the story. Who are we? Where did we come from? Where are we going? Etc. Childhood's End could hardly be called heart-warming, neither could 2001 (although that was more Kubrick's doing in many respects). Even the Rama books, which I think are brilliant, have an awe-inspiring scale to them. He wasted very little time getting warm and fuzzy with the characters before blowing your socks off with his vision of an inscrutable alien presence.

SFBC Member: He won so many awards for many different things. Which did he value the most?

**Robert Godwin:** I think he was particularly proud of the Kalinga Prize because of its connotations and its connection to the part of the world he loved so much. He was also proud of the fact that UNESCO recognized his efforts as early as the 1950s.

Andrzej Wieckowski: Did Clarke view any of his works as belonging to a single future history or were they all separate?

**Robert Godwin:** I have no knowledge of him thinking in terms of a big-overarching theme like much of Asimov's or Heinlein's universes. However, there was a consistency which peeks through most of his greatest work. Those same big themes, the almost pantheistic version of the universe typified by Stapledon's fiction.

Tony DeSimone: One of my favorite aspects of Benson's book is how much of everyone's life and personality he is able to capture in the brief span of time the book covers. No matter how small their role, enough information is offered about each person to give a real impression of who they are/were. I do sometimes feel though that the presentation of Clarke's partner Mike Wilson sometimes comes off as unfairly judgmental, depicting him as someone who took advantage of Clarke's affection and finances. Is there much evidence that this was true outside of the time span of the book?

**Michael Benson:** Thank you for this question. Mike was a curious character, on the one hand charismatic and generous, on the other quite exploitative. I have more than enough evidence concerning the latter, and would simply direct you to the story of his strange behavior with the great Indian director Satyajit Ray, as written by Ray himself in an essay originally published in The Statesman

(Calcutta) in 1980. [Now to be found at http://satyajitrayworld.org/unmade\_ray.html] BTW I had more about this story, which unfolded concurrently with the end stages of the production of 2001, and would have resulted in the first Indian science fiction film, but my editor was of the opinion it was off-topic, and as the book was already quite long, I reluctantly agreed. All I can say is I did my best to be fair to all concerned, and I wouldn't have characterized Mike in the way I did if I hadn't had multiple sources confirming my assessment. These included a Ceylonese filmmaker who had quite a harsh assessment of Mike's treatment of Arthur, as did Roger Caras, mentioned above.

So in summary, judgmental, yes -- but only if that word is defined as "of or concerning the use of judgment." Unfair, no.

**Robert Godwin:** Mike Benson almost certainly knows more about this than I. My knowledge of these things is mostly second hand. I do know that Arthur and Mike Wilson (and Wilson's family) were very close for a long time. I have some of Arthur's letters where he talks in detail about his diving exploits with Wilson and there is a real sense of adventure to their exploits. At the end of the day it was Wilson who led Arthur to Sri Lanka which, after his parents, surely was the most profound impact anyone had on his life.

Richard Whyte: Given the amount of confusion in the press reviews after the initial release of the '2001' movie, do you think Kubrick's apparent delaying of the Clarke's novel version (with its clarification of many of the mysteries) until several months afterwards was counter-productive, or (for example) do you think the minority of reviewers who understood that the 'mysteries' were put there by Kubrick on purpose set the tone for the film's subsequent veneration? In other words, with the advantage of hindsight, can the delay be said to have been a good thing, both for initial review-based ticket sales (vital for a huge-budget film like this) and the longer-term reputation of the film (and the director)?

Michael Benson: In my view Kubrick was right to delay the release of the book until after the film came out. The initial confusion about the intention and meaning of the film was the result of two factors, I think. One is 2001 was truly a ground-breaking, innovative and avant-garde piece of work, and history shows that when such a work comes along -- as it does all too rarely -- it is frequently met with incomprehension and criticism and even ridicule. As was 2001, particularly by the initial New York critics. In my book I cite James Joyce's novel *Ulysses*, which of course also referenced the *Odyssey*, as another example. The other factor was that Kubrick didn't even see his own final cut, with all effects in place and music laid in, until less than two weeks before the preview screenings in Washington and New York. So he had little chance to establish distance and perspective on his own work. And there were redundant sequences and loose sequences which served to undermine some of the clarity and punch of the film, which he surgically extracted in the first week of April 1968. And critical receptivity to the film improved markedly after he made those trims.

I don't think a film should be, or in this case would have been, benefited or hindered by a novel version of its narrative. That said, there's no doubt that people pored over the novel in order to understand some of the film's ambiguities and veiled meanings. And used it as a kind of road map to Kubrick and

Clarke's intentions. And it worked well that way, as long as one didn't take the book's version of the narrative as the only truths inherent in the film.

Robert Godwin: It's a great question. The way I remember it is that it was very soon after I saw the movie in 1968 that I was able to buy the book. I think Kubrick really thought he had made a terrible mistake with the movie (at first). This is documented well in Michael Benson's new book. The truth is that until he made the final cut, which was after it had been screened a few times, I don't think Kubrick wanted to have Arthur nail down the story. Kubrick was first and foremost a film maker and the book was just a side show for him. It was just his obligation to Arthur. I don't think Kubrick anticipated the bad reviews in the first few months, but Arthur and many others including Freeman Dyson and Fred Ordway urged Kubrick to put much of the exposition back into the film because they thought it would bomb. They pushed *really* hard only to be met with equal force. So in some respects they both were right. Kubrick got his unembellished work of art and Clarke etc were proven right too, when everyone went careening to the local bookshops.

Al Datum: I'm curious on his later Rama books how much of the story was him and how much was the co-author, Gentry Lee?

Robert Godwin: This I'm afraid I can't answer I have no idea.

**John Grayshaw:** I'll jump in and answer this one. I found an article in Sci-fi Weekly from 2008 which prints an interview with Clarke done by George Zebrowski in 1999 where Clarke says, "Another important influence on my life, of course, has been Gentry Lee, who was introduced to me by Peter Guber, who wanted to make a film based on Gentry's ideas. It was never filmed, but it led to the novel, *Cradle*, which was based on our joint ideas but almost entirely written by Gentry. Since then Gentry has collaborated on *Rama II* and *The Garden of Rama*, and *Rama Revealed*, which was written virtually entirely by him, though with consultation with me. I've described our collaboration in the preface, "Co-Authors and Other Nuisances," I think in *Rama II*."

John Grayshaw: What are some of the wackiest stories about the production of "2001?" Benson hinted at a few in a recent interview with Nicholas Tufnell. He said, "There's so much of it, I don't know where to begin. From the source of Arthur's financial distress during the four years of production; to stuntman Bill Weston's ordeal after Stanley refused to allow him to punch air holes in his helmet while dangling 30 feet above the studio's hard concrete floor; to the intricacies of makeup man Stuart Freeborn's incredibly elaborate techniques as he worked to create believable man-ape costumes -- it goes on and on. Not to mention Dan Richter's simultaneously dominating the role of a lifetime and holding down a seriously hard-core heroin addiction."

**Michael Benson:** Well, there you have it – some of what I was getting at, obviously! To that I would perhaps add the story of Stanley falling in love with the large thorny prehistoric-looking Kokerboom aloe trees that Andrew Birkin photographed in the Namib desert, and sent him Polaroids of. Which led to Kubrick asking Birkin to cut a bunch of these endangered -- and therefore highly protected -- plants and transport them through the desert to a backdrop he liked better. This resulted in the elaborate all-night Kokerboom heist I describe in the book, complete with a pyrotechnical episode!

**Robert Godwin:** I think one of my favourites was young Andrew Birkin chiming into the conversation and telling everyone he knew where there was a desert in England, and Kubrick then telling him to go and film it, only to then find himself camped out in the middle of nowhere in Africa with an irate

photographer and a beautiful companion. As if that wasn't enough he ended up coming back and managing the model shop. That's the kind of goofy things that happened in London in the mid-60s.

John Grayshaw: The Jack Kirby comic book adaptation of "2001". Did Clarke work with him? And/or did Clarke ever comment on it?

Michael Benson: I have no information on this.

**Robert Godwin:** I'm sorry I don't know the answer to that. I do recall that when I read the subsequent issues of those comics I thought to myself "No way Clarke had anything to do with this!"

John Grayshaw: Why do you think both "Against the Fall of Night" and its revision "The City and The Stars" have both remained popular? Why didn't "The City and the Stars" replace the original?

**Robert Godwin:** Well they do have a slightly different feel to them, but you can never tell with these things. The Sentinel of Eternity of course is popular because it is a historical curiosity. There also seems to be a robust market for this kind of thing amongst aspiring writers who want to try and get inside the writer's head and see how things evolved. Then finally of course Arthur was never shy about selling his writing to anyone who will pay. (He offered me a book once and I declined! I couldn't afford him...)

John Grayshaw: In "Childhood's End" (1953) Clarke imagined that reliable oral contraceptives and an infallible paternity test would, "swept away the last remnants of the Puritan aberration." Did Clarke ever talk about if this played out in real life as he imagined. I mean "The Pill" in the 60's changed the sexual culture and paternity tests are a useful tool. But have they ended "the Puritan aberration?"

**Robert Godwin:** I can't comment on if he ever "talked" about it but as far as I know he didn't write much about this. You could easily criticize him for not getting all of these things right, but of all of the masters of predictive fiction he was surely the best at making smart forecasts combined with a great story. It's pretty clear that Arthur believed in the ability of science to liberate and ennoble humans. He was an idealist with a keen and educated eye. Being a gay, liberal intellectual growing up in post-depression England and then living through the blitz would have made many of these ideas occur to him.

John Grayshaw: Was Clarke speaking out against Apartheid when in "Childhood's End" he wrote about African racial strife getting so bad that the Overlords interceded and blocked the sun over South Africa for 30 minutes. After which, "civil rights were restored to the white minority."

**Michael Benson:** I think this is a great example of Arthur's tongue-in-cheek sense of humor, because of course it was forecasting not only an end to Apartheid but a turning of the tables. He was consistently against racism in all of its forms.

**Robert Godwin:** My guess would be almost certainly. Apartheid was only a few years old when he wrote Childhood's End. He had just lived through a terrible conflict which had killed some of his friends. He had seen first-hand how such narrow-minded thinking could lead to terrible conclusions.

John Grayshaw: Is "Rendezvous With Rama" just a fun adventure story or does it have some of the deeper meanings that some of Clarke's others works have?

**Robert Godwin:** To me it fits perfectly into his "world vision" of a universe that is wondrous, enormous and completely inscrutable. It's also a great adventure story. There are many parallel themes in it that appear in his short stories that the universe is more complex than we can imagine. The ending is a wonderful one liner.

John Grayshaw: In a 1999 interview with the NY Times, Clarke was asked the world's population has hitting six billion and how do you feel when you see a headline like that? Clarke replied, "Well, I feel rather depressed, but then there are so many times when I'm an optimist. I think we have a 51 percent chance of survival. I would say the next decade is perhaps one of the most crucial in human history, though many people have felt that in the past. But it's real now. There are so many things coming to a head simultaneously. The population. The environment. The energy crunch. And, of course, the dangers of nuclear warfare. I am often asked to predict things and I'm described as a prophet, but I deny that. I'm just an extrapolator. I can envision a whole spectrum of futures, very few of which are desirable." Now we are 20 years later. How would Clarke say we are doing?

Robert Godwin: I think he would say he may have been off by a few years but things are not getting any better. His comment about extrapolation reminds me of Jules Verne who gets all the credit for "predicting" things which Verne said he only extrapolated from what was going on around him. In this respect Clarke was very much like Verne, a well-read keen observer. If anything all of the things he mentioned in the quote above are just as bad as they were then if not worse. Both he and Asimov were intensely concerned about population growth and resource diminishment. They were both talking about that in the 1970s, and so far in my lifetime I've seen nothing happen that has proven them wrong.

John Grayshaw: I'm very confused about a comment in a 2000 interview with Gary Dalkin, Clarke talks about writing a script for Kubrick's AI, Clarke says he thought it was pretty good and his agent "thought it was the best thing I'd ever done. But unfortunately Stanley hated it. So nothing came of that." So was AI originally not based on "Supertoys Last All Summer Long" by Brian Aldiss? Is a copy of Clarke's script available to read and/or in the Clarke archives?

**Michael Benson:** Sure, it was based on it, but Stanley asked Arthur to work on an adaptation for film. I recall seeing correspondence at the Clarke archives about this incident, but not a draft.

Robert Godwin: I think I read somewhere that Kubrick asked him to submit a script. I've never seen it and I wouldn't be surprised if the only copies that exist are in the two archives (London and Washington). It was always my understanding that the Aldiss story was the basis of the film. This would not be unusual for Kubrick, he frequently brought in collaborators and then parted ways with them and brought in someone else as evidenced in Benson's book on 2001. One of my favourite artists, Chris Foss, did some amazing conceptual work for AI, he also was involved in Jodorowski's Dune and he gets little credit. Likewise Kubrick's science advisor on 2001, Fred Ordway, was briefly consulted by Ridley Scott on Alien, and his conceptual designer Harry Lange worked for George Lucas on Star Wars but hardly anyone knows this. I think Arthur was also comfortable enough, and wary enough, to not care if Kubrick used him again.

John Grayshaw: Clarke often said that the Space Elevator would be built 10 or 20 years after everyone stops laughing. Is everyone still laughing?

**Robert Godwin:** Pretty much. Although the physics is sound, the engineering and cost are still way beyond our capabilities, but more importantly it's rooted in the problem that NASA has every day, most people still don't understand or care about getting into space at all, much less on a trillion dollar elevator. If someone can come up with a way of making LOTS of money out of the space elevator, then maybe they might try and build it.

John Grayshaw: In an interview with Jean Kumagai, billed as his last interview, Clarke said about private entrepreneurship in space exploration, "It can never be fully private, because it is too expensive. Yet in a 1999 interview with the NY Times he talked about Buzz Aldrin visiting him in the hospital and said "Yes, he dropped in to see me in the hospital and he kept making the point: we've got to get NASA out of the space business. He believes it should be private enterprise. There are a lot of people now who are trying to develop relatively cheap nonbureaucratic access to space. How successful they'll be, I don't know. I think the rocket will end up doing for space travel what the balloon did for air travel: it got us there, but soon was superseded by something better." So what would Clarke have thought of the privatization of the space program in the last 20 years or so?

**Michael Benson:** I'm sure he would have been fascinated and be cheering it on. I must say the spectacle of Elon Musk and Space X's reusable boosters descending to Earth and landing side by side in synchronized fashion on tongues of flame is one of the most extraordinary and science fiction-inflected sights I've ever seen. There's been nothing like it since the Curiosity Rover landed in a similarly spectacular way on Mars in August 2012 – but we couldn't actually see that landing in all its complexity. The latter, of course, was a NASA mission anyway, and not privately funded.

Robert Godwin: I think he'd say he was right. Much of the money flowing into New Space is still government money. Virgin Galactic is still not really into space yet. Neither is Blue Horizon (well barely). SpaceX gets lot of its cash from government launches. No one outside the USA is serious about doing manned spaceflight with private money (yet). Also it is worth remembering that when Buzz had that conversation in 1999 with Arthur the mantra of the moment was "get NASA out of the low earth orbit business". That was coming from the New Space movement in places like the Space Frontier Foundation where Buzz was a regular attendee. There was a lot of telecom and dot.com money starting to pour into that evangelical wing of the space community and enthusiasm abounded. Ultimately they were partly successful when they persuaded the Bush administration to announce that NASA was going back to the moon and would also start issuing contracts to these new upstart companies to look at taking over the trucking to low earth orbit. Although Elon Musk must get the lion's share of the credit for SpaceX and its accomplishments, the environment to make it possible came out of that surge of capital into the tech sector and the people like Rick Tumlinson who sold it in Washington.

John Grayshaw: "Childhood's End" ends with humans being accepted into the Overmind. "2001" ends with David Bowman becoming an immortal Star Child. Did Clarke believe humanity needed to and/or should evolve into something else? Some sort of trans-human or collective? Can't we grow without changing our basic human nature?

**Michael Benson:** I believe the answer to this was a firm "Yes" – he did believe we needed to evolve into something else. BTW my thesis is that much of Arthur's thinking in this regard was influenced by Konstantin Tsiolkovsky's observation, in an essay published in 1912, the "Earth is the cradle of the min, but humanity can't remain in its cradle forever." Arthur understood the leap into space as potentially as momentous in evolutionary terms as the expansion of life from the sea to the land, and wrote about that with incredible eloquence.

**Robert Godwin:** This goes right back to the influence of Stapledon on Clarke. The idea of an almost never ending evolution for mankind is paramount in Clarke's fiction. It's also common sense. Evolution has never stood still since the first prokaryotes became eukaryotes (if that's what happened!)

John Grayshaw: Thank you Michael and Robert.

Michael Benson: My pleasure!