## **Images of The Beast**

Author: Rev. C. J. McKnight

5 March 1978

In 1978 David Rorvik, a freelance science writer based in San Francisco wrote a book entitled: 'In His Image: the cloning of a man', Philadelphia: Lippincott 239p; 22cm c1978. He then traveled around the country speaking in various places, i.e. Western Washington University, claiming that the book was not fiction. In march of 1978 he was interviewed by Hilda Bryant of the Seattle Post Intelligencer and two articles were printed on the second and third of that month. I believe that his lectures were a publicity stunt in order to sell more of his books. It worked, I bought the book and read it and felt his book would have made a very good Hollywood movie. (See The Boys from Brazil below).

On March 5, 1978, Sunday evening Pastor C. J. McKnight preached a sermon about 'cloning'. I believe this message was one of the greatest Biblical revelations to date. The following is a transcript of that message I have entitled: 'Image of the Beast'. For related viewing, thanks to hollywood, you might like to check out these (VHS/DVD) movies: 1) The Sixth Day – Arnold Schwarzenegger (Cloning) 2) Jurrassic Park – (Cloning) 3) The Island of Dr. Moreau – Marlon Brando, Val Kilmer (Genetic Engineering) 4) Gattica – (Genetic Engineering) 5) The Fifth Element – Bruce Willis (Cloning) 6) Blade Runner – Harrison Ford, Rutger Hauer(Genetic Engineering) 7) The Boys from Brazil – 1978 – Gregory Peck, Laurence Olivier(Cloning) R.P.

My subject tonight is cloning, not clowning, as one joker said. I'm going to do something tonight that I really delight in doing and that is in the Seattle paper, the Seattle PI, on the second and third of this month they ran these articles consecutively. If you ever sent in an article to the news papers, either one of them, they'll hack it up, cut it up, slice it up, and chew it up, and then put a sentence in of the meanings that you are asking them to report. They'll never give you the space that they give themselves, naturally. But you can pay for as large an ad as you want. And so tonight I'm going to cut their article up. So I'm going to have my fun. And I'd like to read what I've cut out here, cut out of the two articles. It's rather long and yet I want you to hear these things tonight perhaps in my message I will make two asides and yet they are related to what we are going to say.

This is written by Hilda Bryant, and she said, "A respected New York book publisher has made the stunning announcement that a human baby was created in the laboratory from the cell of a male and is now fourteen months old." Cloning in this case means growing a perfect replica of a human being from a single cell sliced from that human being. No sperm or ovum is involved. The book entitled: "In His Image: the cloning of a man," was written by a freelance science writer named Dave Rorvik who is based in San Francisco.

"The timing is right," Dr. Joshua Letterberg said, "ten years ago they'd probably clone the first human within a decade." If what Rorvik claims is true, he is talking about a new reproductive technique that can change the pattern of history. Cloning has never been reported in mammals before. If true, this is a giant step closer to genetic engineering.

Rifkin and Howard and this is another book, describe in their book: 'The Cloning of Lower Animals' as long ago as the 1890s. And sophisticated experiments with frogs in the 1950s. University of Washington geneticist and microbiologist Dr. Stanley Falco, known internationally for his research in creating new forms of life by splicing genes said yesterday, "it's possible."

Microbiologist-geneticist Benjamin Hall who is involved in gene splicing research at the University commented, "I am very dubious over this giant money making publicity stunt, the subject is really ripe for this thing." Hall said, "the scientific technology for such a procedure doesn't exist as far as I know."

And now I want you to listen carefully to this, he said, "replicas of mice have been created in the laboratory without using the conventional sexual reproduction techniques by manipulating a female mouse cell with electrical shocks or special chemicals. The virgin birth of female mice capable of bearing their own litters is termed parthenogenesis. (1)" Now if man can create a mouse, don't you think that the virgin birth is a truth? Here they use the very term that you use in relating to the virgin birth, parthenogenesis. Which is nothing more nor less than virgin birth. And they have gone so far as to literally produce mice in their laboratories by mechanical means or means other than that which is the ordinary technique. When I read this, to me they're simply proving one thing and that is the virgin birth of the Lord Jesus. If man can do it, how much more God? That's my first aside.

Rorvik told the students and this is when he was speaking at the University in Bellingham, "the baby was born in December 1975 of a surrogate mother, is still alive and the child appears heathly in every respect. In 1973 I was approached by a man who eventually revealed to me that he wanted to be cloned." Rorvik told student reporter Mike Wickrye for a publication in the February 10 Western Washington State University student newspaper the Western Front.

"He identified himself as being very wealthy and very knowledgeable on the theory of cloning. The man was from the outset very secretive, very protective of his personal life." Rorvik said of the alleged donor according to the Front account. "I was stunned by his proposal. I went through a long period of serious thought about it. I was very concerned about the moral implications that could evolve from this action. I had serious concerns over the legitimacy of the proposal," Rorvik told the Front. "I wanted to make sure that the man making this offer was sane and not just an egomaniac." Rorvik said, "the donor had never married and wanted an heir."

Another Bellingham source, communication student Jerry Galloway, who heard Rorvik speak about the experiment in a journalism class said, "the writer described his donor client as maybe in his 70's but looking about in his 50's, a very fine specimen of a man." Galloway said, "Rorvik told the students the donor was a multi-millionaire who had grown up in poverty an orphan. He said he wanted a son to raise in a manner he had never experienced in his youth." According to the Front article the donor told Rorvik he had brought his proposal to him because of Rorvik's extensive background in writing about cloning and related subjects. Rorvik said the client asked him to obtain scientific and medical personnel who could perform the procedure. "I found the medical and research people needed for the procedure and a very efficient research project was started," said Rorvik after he convinced himself that the client was indeed sane. He told the student reporter that he came to feel the project was good and would be a great step for mankind. Cloning, a procedure for growing exact replicas of the donor from a single mature cell taken from that donor was performed in secrecy to protect the donor, the cloned human, the scientific researchers the medical personnel and the surrogate mother who provided the womb for the full-term gestation. Rorvik said he had a contractual agreement with the donor and himself to maintain this secrecy.

The book written by these two men Rifkin and Howard is entitled something like: "Who can play God?" Now your Bible opens with these words: 'In the beginning God created the heavens and the earth.' Althroughout the first chapter of the book of Genesis we find the creation of God brought forth and then we read of the glorious and wonderful creation of man.

God created man in his own image and in his own likeness. As we look at what we are considering tonight, first of all let me say this to you that cloning is a horticulture term. In the Greek, the word is klon, and it means a twig or a sprout. Interesting isn't it, because in the scripture the Lord Jesus is spoken of as the 'Sprout' or as the 'Branch'. I'm going to use just one scripture, I guess I'm going to have three little asides here. But if you will turn with me to the book of Zechariah, the sixth chapter we are going to read verse twelve, Zechariah six verse twelve. 'And speak unto him, saying, Thus speaketh the LORD of hosts, saying, Behold the man whose name is The BRANCH; and he shall grow up out of his place, and he shall build the temple of the LORD:(KJV). Now to clone means, in Greek, a twig or a sprout. Branch is one of the names given in the Old Testament to the Lord Jesus Christ. He is God's Branch. He is that twig or sprout that came forth from the root of Jesse. I don't think that terms such as this are just circumstantial nor happenstancial. I think we are faced with an attempt, in the end of the age, for man to produce everything that God has produced. Now to clone, to us, to the horticulturalist simply means to breed not with the true seed, or to take a bud or a graft or whatever other means men might use and produce a tree.

I understand that there's a tree someplace out in the southend that Alan Simonson has been toying with and he's grafted a tree that's going to bear all manner of fruit. Have you got twelve yet? Well, when you get twelve manner of fruit let us know and we'll come out and see the tree. But what he is doing is cloning the tree. He is taking sprouts from other trees and joining them, grafting them into the tree. And there used to be a song, I remember Hilding Halverson singing, I don't remember exactly how it went. But it was something about tying apples on the lilac tree. Apparently in the song, she had made a promise that when apples grew on the lilac tree that she would marry him. It was a song that was sometimes sung at weddings or receptions or things of that nature. It wasn't a spiritual song, it was just one of those songs. So, the young man was out tying apples on the lilac tree. Well, you can go out to brother Simonson's one of these days and you can see hanging on the tree apples and pears and peaches and all kinds of good things. Because he's cloning the tree.

I look again in the word of God and I see that there came a time when man tried to usurp the authority of God. It started first of all with a man named Nimrod. And in that day and hour the earth was one, men were one. There was unity, at least as far as language was concerned. And they attempted to build a tower and to reach unto God. Wonderful thing to be on a stretch for God or reaching out for God but not in that fashion, in God's way.

We go a little farther in the word of God and there are many examples that we could give you tonight but will not take time for them. We do want to mention another one that is very symbolic. And that is Nebuchadnezzar in the days of Daniel. For Nebuchadnezzar built an image. And that image became an object of worship throughout the land of Babylon. That image was sixty cubits high and six cubit wide. It had the number of man upon it, two sixes. And it was because of their integrity and their desire to worship God that some of God's people in that day and hour got into trouble. They refused to bow. They refused to worship the image of Nebuchadnezzar.

And then I turn to the New Testament, I read these words found in the book of Romans, the first chapter of Romans verses twenty-two and twenty-three. Where Paul said, "Professing themselves to be wise, they became fools, And changed the glory of the incorrupitible God into an image made like to corruptible man, and to birds, and fourfooted beasts, and creeping things." There is no question but what we are exceedingly wise in our day. We have sent a man to the moon, we transplant organs today. You could be sitting here tonight with somebody else's eyes at least a portion of the eye. You could have somebody else's kidneys. You could have someone else's heart. You could have had a heart by-pass. There are all kinds of things that medical science can do today and we are living in a very wise age. We have sought out many inventions and we have made life to be a life of ease and comfort. And for the life of me, I don't know where time goes in these days. If we had to go out and cut wood and haul it and wash and iron like they used to and do the kind of work and take the trips that they used to take. What we do today in a weeks time would take us two months. And so we have speeded up our whole way of life. And the amazing thing is that we get less done today than they did and we have more time to do it in.

So we are very wise, but their wisdom brought about one thing and that was the creation of an image. And this evening we have read from the newspapers the ability of man to re-create himself. We notice in the articles, and this I think is rather common knowledge, that we are coming close to a place where we are going to be able to produce the perfect man, the perfect human being. And no doubt if time continues and the Lord doesn't wrap the whole thing up, you will one day be able to go to a doctor and you will be able to say to him I want a son. Not a 50-50 chance, but he'll say I'll see to it that you have a son, and that son will be ..., a what do you want a football player or a basketball player? If you want a basketball player he'll be seven feet and a half tall and we'll see to it that if you want a football player he'll be six-two, six-three and he'll be nothing but muscle and bone and be about twohundred and fifty pounds. You want him to run? We'll make a speedster out of him. This is not imagination tonight. These things are already being thought of by men and they are learning the very stuff of life.

One thing that I've never gotten around to preaching on but it amazes me the fear that is in the heart of the scientist and that is with their dealings with DNA(2), which is called the stuff of life. They're afraid to play with it and yet they've experimented with it. With this, there apparently will be in the future attempts made in congress to stop cloning, as far as human beings are concerned. There is an attempt to stop their experiments with DNA, lest something break out of the laboratory and create havoc among men. Men are dealing with something that they don't understand and yet they are filled with wisdom along these lines. And they can do tremendous things, but they know they are dealing with the very stuff of life and it creates a fear in them.

Man in his wisdom makes an image like himself. Do we really love ourselves that much? Would you really want your son or your daughter to be exactly like you? Are you that perfect? You hope that they would have all the nice features of your beautiful wife and her kindness and her sweetness and her gentleness and all this. And just as sure as you have a child that you want to be this way they'll be like YOU. And that isn't always the most pleasant thing is it?

But we are looking here tonight at an attempt that may or may not have been made, we may be looking at a hoax. It doesn't make any difference to me whether it is or is not a hoax. The thing that I see is that the possibility exists! Where they can take a cell from you and create another human being from your cell. And I've spent most of last week thinking about tonight and wondering and praying and asking the Lord what I would preach on. And my thoughts all seemed to run to the End of the Age and to those things that we face and then these articles came out. So my special thanks to brother Jim Hinkley and the PI for their articles because I'm going to turn to the book of Revelation.

And when I turn to the book of Revelation, what we have said to you thus far suddenly takes on great importance. I think somebody said something about the word of God either last night or today, and that is that you can read it and you can reread it and you always see something that really didn't seem so important before. And in reading these scriptures that I'm going to read to you tonight, there is one facet, there is one outstanding statement in each of them, there is one reference in each of them that stood out to me in the light of what is before us tonight.

The thirteenth chapter of the book of Revelation. Reading from the eleventh verse on for a few verses here, "And I beheld another beast coming up out of the earth; and he had two horns like a lamb, and he spake as a dragon. And he exerciseth all the power of the first beast

before him, and causeth the earth and them which dwell therein to worship the first beast, whose deadly wound was healed. And he doeth great wonders, so that he maketh fire come down from heaven on the earth in the sight of men, And deceiveth them that dwell on the earth by the means of those miracles which he had power to do in the sight of the beast; saying to them that dwell on the earth, that they should make an image to the beast, which had the wound by a sword, and did live. And he had power to give life unto the image of the beast, that the image of the beast should both speak, and cause that as many as would not worship the image of the beast should be killed."

In the thirteenth chapter of the book of Revelation there are two beasts that appear. The first is the Anti-christ. The second is that which is called the False Prophet. Now there isn't a thing that I read in the scriptures tonight that is not significant and is not contemporary with today's life. For all of a sudden, we find that in many circles there is great emphasis being laid upon prophecy, the gift of prophecy, and people are being taught by the precepts of men to prophesy. They are being encouraged to give messages in tongues and interpretation and if they do not understand how these gifts of the Spirit work, then they are given classes where they may learn how to exercise these gifts of the Spirit. I find the early church did not have classes in these particular areas, in the manifestation of the gifts of the Spirit. They didn't need classes because the Teacher dwelt within. If you have the Teacher dwelling within, after all isn't He the one who operates the gift?.

Why then should we have to have a man teach us how the gift operates? But there's a danger here, for there is coming a False Prophet. Now he's called a prophet and prophecy, and I do not mean the future, but the gift of prophecy has suddenly sprung to the forefront in the church. Until it is being misused, it is being exercised in services where they may go on to excess in the number of manifestations of the gift that are brought forth.

But there is a reason for it, because there is coming a tremendous prophet. One who will have authority, one who will speak, mind you, he will speak having apparently the ministry of a lamb. For he has the two horns of a little lamb. So subtle, and so deceiving is this False Prophet who will come. He comes, as the scripture says, with all lying wonders. He comes with power, he comes with the ability to call fire down out of heaven. He will work miracles before the Anti-christ. He will work miracles in the eyes of the world. He is not an individual to be toyed with. He is not one to be discounted, for he will go one step farther and it is he who suggests to the world that they make an image of the Anti-chirst.

The purpose of the Lord Jesus in the church is to create in you and in me the very image of Christ. Jesus came into the world and he was the express image of his Father. The Greek word is 'Ikon'. It is used here in reference to the image of the beast. It again is 'Ikon'. You and I are to take upon ourselves the image and likeness of the Lord Jesus Christ. We are to be made anew, afresh in the new creation into his image. Here is one who will create an image. The scripture doesn't say that this image will be one of stone or of iron or of gold or of silver. It simply states an 'image'. When I first started thinking of this and saw what men were doing I thought that perhaps we would have an electronical gadget of some kind. You can go to various areas of the world where they have, for instance, in Disneyland, they have a replica of Lincoln, you can stand and listen to Lincoln speak. It's not Lincoln of course, it's a replica, it's an Icon of Lincoln. And through electronic gadgetry it can speak. And it brings you a message, and there are others there. I thought that perhaps this was what the Anti-christ and the False Prophet would perpetrate on the people. And then scientist began to deal with test tube babies. A baby born outside of the womb. Which may perhaps be the method that will be used.

But now we have another method and that is cloning. And the inference, the statements, the language that is used. Using a single cell and creating something that is in the image of that from which the cell is taken. I would surmise, I don't know but it's possible that if you take a cell from a male you would have a male child, if you take a cell from a female you would perhaps have a female child. But this that will come by the effort of the False Prophet will be in the image of the Anti-christ and amazingly will speak, will breathe. When I turn back to the beginning, to the book of Genesis I find that God created man and breathed into him the breath of life and that man became a living soul. Now God created him, he created him body, he created him soul and then he breathed into him the breath of life and that man became a living soul and every one of us that have been born into this world

since that time are living souls. And no one has been able to reproduce that! Until you come to the Anti-christ.

Then the Anti-christ has the force and power, the ability, satanic obviously, to be able to breathe life into the image of the Anti-christ. Life, breath, the word is pneuma(3) in the Greek. He breathes breath into that image that is just like the Anti-christ. Who knows the reaction of the world when this is done? Who has seen such a thing? Who has heard of such a thing? All of a sudden man can make man. And man can give to man life.

But I have the sense and feeling that something's missing here, because God breathed the breath of life into man. God breathed a spirit nature into man and the spirit comes from God. It is more than just breath, it is a living soul. This creature that is created by the False Prophet has simply the ability to manifest life, to breath and then to speak. But there is no indication that he has spirit life. 'And he had power to give life (or breath) unto the image of the beast, that the image of the beast should both speak, and cause that as many would not worship the image of the beast should be killed.' He will be worshipped by the people of that day. What Satan perpetrates on the people, in the person of the Anti-christ, in the person of the image of the Anti-christ are objects of worship. They are to be worshipped, they are to be followed. Men are to serve them and do that which is it's will, the image. Whatever name might be applied to it. And who wouldn't stand in awe at the tremendous things that take place as this False Prophet manifests his ability and then shows that he can produce life? That's God like, that's amazing. For only in God can we find life.

The fifteenth chapter of the book of Revelation, the second verse, 'And I saw as it were a sea of glass mingled with fire: and them that had gotten the victory over the beast, and over his image, and over his mark, and over the number of his name, stand on the sea of glass, having the harps of God.' Now, I've always emphasized the fact that the Anti-christ had a mark that he would perpetrate on the people. And I feel like that has been very important and it is important. But I find something more and that is joined with the Anti-christ and the mark of the Anti-christ having the same importance is worship unto the 'image' of the Anti-christ. Almost as if though one were not attracted by one they would be attracted by the other. And to worship

the 'image' of the Anti-christ is as deadly and brings on as certain judgment as worship to the Anti-christ does as the mark of the beast does. And all of a sudden this 'image' stands out in importance. I don't know, what will man be able to do by the time the False Prophet comes on the scene? And we are talking about things that maybe as long as twenty years down the line. It could be as short as five years. In other words we are on the very throws of the fulfillment of these things. As science continues to advance there is a possibility that when they come to the 'image' of the Anti-christ they will have gone beyond using a surrogate mother and a natural womb and will find a way, a process of producing not a babe but a grown human being. For this babe does something that babes don't do, it speaks.

We were pastoring in Everett about 33 years ago, and ... was it Everett or was it Butte, Montana? That was longer but one of the young men in the church went up to see his baby and he came running down and he said "mama, mama" he said "the baby's talk'n in tongues". Well, it was cooing and it was babbling in the crib and he didn't understand what the baby was saying, so to him it was talking in tongues. Well, no baby has ever been born that speaks. But here is an 'image', here is a replica, here is a likeness that will have the ability to think and to speak and to lead men and to demand of men that they worship it. Not only worship the Anti-christ, not only take the mark of the Beast but men will literally be forced to worship the 'image' of the Anti-christ. It couldn't be a mere babe, it couldn't be one without intellect. This 'image' of the Anti-christ will have the ability to make men do what it wants them to do.

Now as I search the scripture I find that there are special judgments allotted to those who will take the number, name, or mark of the Antichrist. Who will worship him and also to those who worship the 'image'.

Now don't forget we have been created in the 'image' and likeness of God. We are being created today as new creatures in Christ in the 'image' and likeness of God. Jesus came in the 'image' of God.

Now, here in the future we see projected, this thing, this event where one will be created by the powers of darkness and will be in the exact 'image' and replica, an Icon if you please of the Anti-christ. And he will have force, power, and authority, ability to lead men.

But note the sixteenth chapter of the book of Revelation, the second verse, 'And the first went, and poured out his vial upon the earth; and there fell a noisome and grievous sore upon the men which had the mark of the beast, and upon them which worshipped his image. Do you see what the scripture is saying to us? Maybe you've always read this. I've read it, I don't know how many times I've taught the book of Revelation. And to me the emphasis was always on the 'mark' of the Beast. But now I see that the word of God is not only saying the 'mark' of the Beast but worship unto the 'image' is as vital and important in the judgments of God as the 'mark' of the Beast itself. 'And here is a noisome and grievous sore' a cancer if you please falling upon those who have taken the number, name or the mark of the Anti-christ.

I turn to the nineteenth chapter of the book of Revelation, the nineteenth chapter the twentieth verse, 'And the beast was taken, and with him the false prophet that wrought miracles before him, with which he deceived them that had received the mark of the beast, and them that worshipped his image. These both were cast alive into a lake of fire burning with brimstone. The Anti-christ and the False Prophet cast alive into the lake of fire into their eternal home, their eternal destiny. But what happened to the 'image'? We are not told what happened to the 'image'. The Anti-christ and the False Prophet are men, turncoats if you please. Men who have turned from the truths of the Gospel of Christ. But the 'image' is the creation of the False Prophet. And for the life of me, I don't see how he could possess an eternal spirit. A robot, not mechanical but a thing produced by men that has the ability to breathe and to live. But does it possess a spirit given by God? There is no judgment upon it. It simply is gone. Those that created it are judged eternally. But there is no statement made of what happens to it. I don't think it possesses a spirit given by God or it too would be judged.

Then in the twentieth chapter of the book of Revelation the fourth verse, 'And I saw thrones, and they sat upon them, and judgment was given unto them: and I saw the souls of them that were beheaded for the witness of Jesus, and for the word of God, and which had not worshipped the beast, neither his image, neither had received his

mark upon their foreheads, or in their hands; and they lived and reigned with Christ a thousand years. Here are the tribulation martyrs, those that were not taken out at the beginning of the tribulation period. They were unprepared for God's great and wonderful work of catching away his Bride. And they went into the tribulation period and they faced the 'image' of the Anti-christ. They saw the miracle, they saw the wonder of that which was created by the False Prophet. And they were commanded by the 'image' to worship the 'image'. The 'image' itself demands worship. It isn't that the False Prophet or the Anti-christ alone say that he must be worshipped. But this thing created by the powers of darkness declares that it must be worshipped. It demands worship. And there will be those who die for Christ because they refused to worship the 'image' of the Anti-christ.

Let me go back again and in conclusion read for us Romans the first chapter and those two verses, Romans one, twenty-two and twentythree, 'Professing themselves to be wise, they became fools, And changed the glory of the incorruptible God into an image made like to corruptible man.' Let me say this in conclusion, believe it or not, as contrary as it might seem to be you are still the crowning work of God's creation. You are still the epitome of his work. And you are more so as you come closer and closer to the perfection of the church. For he is changing his church from glory to glory as by the spirit of the Lord. And all of a sudden we view in the word of God, that what God does by his Spirit Satan will imitate and duplicate. For we are members of the Body of Christ and will be in his likeness, in his perfection, in his glory having his power surging through us.

But at the same time there will come one who has all the force and power of Satan manifest in him and he is in the 'image' of the ungodly. You know we have often spoken of the Devil, the Anti-christ, and the False Prophet. But there is a fourth one there and that is the 'image' of the Anti-christ. And we speak of the Father, the Son and the Holy Ghost, and we are joined to Christ. But there is a fourth one there, the manchild, born of a perfect wedding. Satan has his imitation, will it be cloning, will it be a test-tube baby, will it be parthenogenesis. What will it be? I'm saying this to us tonight that man has the knowledge and the wisdom and the ability to do it now. Brethren we're living in the End of the Age. The conclusion of all that is around about us and all that is declared in the word of God is about to come to pass. And I think as we proceed into the future we're going to see more and more of the possibility of that which God has declared in his word fulfilled around us. I'm glad tonight I know Jesus.

Father we thank you for the privilege we have of serving you, of loving you. We thank you that you have a plan for our lives. That you have called us unto yourself, to serve you, to walk with you to know your power, your blessing in our lives. We thank you for the high and holy calling that is in Christ Jesus. We pray tonight that you will bless your children, that your hand of power and glory shall be revealed in every life. May each of us be drawn closer to you. May we realize that indeed you are speaking to us through your word in these days. For we're living in the End of the Age, we're living in the last days. These are days of preparation for the Bride of Christ. Stir our hearts to walk with you, to know you in the power and glory of that new life that is in Christ.

(1) par-the-no-gen-e-sis: reproduction by development of an unfertilized gamete that occurs esp. among lower plants and invertebrate animals.

(2) DNA – deoxyribonucleic acid: any of various nucleic acids that are localized esp. in cell nuclei, are the molecular basis of heredity in many organisms, and are constructed of a double helix held together by hydrogen bonds between purine and pyrmidine bases which projects inward from two chains containing alternate links of deoxyribose and phos

(end)