KAYAKING

Tips on beginning a fulfilling new leisure activity.

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INTRODUCTION

Kayaks can be defined as a boat that can be paddled from a seated position with two paddles. It is a decked boat in contrast to the canoe, which is a nondecked boat and has to be paddled from a kneeling place with a single paddle.

Being human-powered, the Kayak is covered by a spray deck. The paddles are double-bladed.

Kayaking is using the Kayak to move on the water. The difference between the Kayak and the Canoe is the cockpit. While the kayak has a closed cockpit, the canoe has an open one.

There is a seat at the bottom of the boat where the kayakers sit with their legs stretched out. On a canoe, there is a slightly raised bench where the canoeist has to kneel.

Kayaking as a hobby is gaining tremendously in popularity. With lifestyle becoming increasingly stressful, many people are taking to kayaking on weekends which is a beautiful way to enjoy with family and friends.

This book details the various types of kayaks, their techniques, tips on purchasing a kayak, etc. If kayaking is already your hobby or you plan to take it up as a hobby, then go on....happy reading and happy kayaking!!!

HISTORY OF KAYAKING

The meaning of the word kayak is “man’s boat” or the “hunter’s boat.” According to archaeological evidence, kayaks are as old as 4000 years. Building a kayak originally was a very personal affair. The person who wanted the kayak had to construct it on his own, maybe with the assistance of his family.

His wife significantly helped him sew the skins and helped him fit everything to measurement, ensuring there was enough room for maneuverability. They then created a skin jacket called a Tuilik – the original form of the modern spray deck, which is attached to the kayak and acted as a waterproof seal.

The way the original kayaks were built is exciting. The first kayaks were constructed according to the size and structure of the person using them. There was no particular set standard for the size of the kayak or the material used to build it.

The kayak builder used the materials that were available to him and used approximate measurements, adjusting the same with his body structure as a reference.

They used some standards like the kayak length should be three times the length of the user’s hands when he stretches out. The width of the cockpit measured the width of the builder’s hips plus two fists, and the depth was approximately two of his fists added to the outstretched thumb.

When you work this out, you see that the original kayaks are approximately measured around 17 feet in length, 20 to 22 feet in width, and about 7 inches in depth. Every kayak was, therefore, unique and custom-made and very difficult to duplicate.

Thousands of years back, the indigenous people living in the Arctic region used boats for hunting fish for their livelihood. They used to go on boats and fish in the rivers, inland lakes, and the coastal waters of the Arctic Ocean, Bering Sea, North Atlantic, and North Pacific oceans.

These were the people who invented the original form of the kayak. They did this by using the skin of animals like the seal. Since a lot of the areas where they lived did not have any trees, they used to collect driftwood, make frames out of these and stretch the seal skin over the edge to give body to their kayaks.

Kayak is a broad term used these days for this type of boat. Originally the native people had different names for vessels used for other purposes.

A type of boat that was made in double or triple cockpit designs was used for transporting passengers and goods and also for hunting. This boat was referred to as the Baidarka.

Another type of boat between 17 to 60 feet long was open-decked. This boat was constructed using driftwood frames and seal skins. The paddles were single-bladed, and more than one person used to paddle the boat. This boat was called the Umiak, which means “Women’s Boat.” The kayak was probably an Umiak that was decked and evolved into the modern-day form over time.

Today's kayaks originated from the primitive boats of Alaska, northern Canada, and Southwest Greenland. Until the 1950s, wooden kayaks and folding kayaks, which is the kayak made out of fabric fitted on foldable wooden frames, were popular.

The year 1950 saw the introduction of kayaks made of fiberglass. Using rotomolded plastic to make kayaks is in vogue even today, which originated in 1973.

Today kayaking is more of an entertaining hobby pursued by many people. The stress of modern life leads people towards kayaking, where they can let go and play around with the forces of nature and return fresh to face life.

Apart from being a popular hobby, kayaking is also becoming popular as a competitive sport.

DESIGNS OF CONTEMPORARY KAYAKS

Three critical factors are taken into consideration while constructing a kayak. They are the manoeuvrability or directional stability, primary and secondary stability, and overall lateral stability and speed. Following are some of the factors which affect the design of the kayak.

LENGTH OF THE KAYAK

The length of the kayak is a significant factor. While a longer kayak is faster, the smaller ones are easily maneuverable. But the speed of the longer kayaks is restricted to an extent by the friction that is created.

Kayaks are used for touring, and the sea kayaks are between 16 and 19 feet long. The whitewater kayaks are built shorter to enable easy manoeuvrability as they are mainly used in rivers and depend on the river currents for their motion.

Boats that require more manoeuvrability than speed thus are much shorter actually, at most eight feet. Specialized ships, like the play boats, are just six feet long.

The recreational kayaks are generally between nine and fourteen feet. This is because they are designed as a compromise between tracking and maneuverability. They have the additional requirement of keeping their costs down for obvious reasons.

ROCKER

The second factor that has to be taken into consideration while designing a kayak is the rocker. Rocker is the measure of the curvature of the kayak from the bow to the stem. A heavily rockered boat is less in contact with the water's surface, and a ship that is rockered less is more in connection with the water's surface. If the rocker is moderate, it makes it easy to handle the kayak.

Kayaks which are less rockered are usually fast, and the ones which are more rockered are flexible and manoeuvrable. For example, even though a whitewater kayak is not very much shorter than a recreational kayak, it is more manoeuvrable due to the fact that it is heavily rockered. The waterline is thus much faster in this kayak.

The following important factor in kayak construction is the design of the hull. The design of the hull depends on two factors. One is the shape of the bow to the stem, and the other is the shape of the hull in cross-section.

The bow-to-stem can be of different shapes

- Symmetrical in which the widest part of the kayak is precisely midway between the bow and the stem.
- The fish form in which the widest part of the kayak is a little forward at the midpoint.
- The Swede form is the one in which the widest part is at the back of the midpoint.

THE V BOTTOM

The V bottom is another feature that affects the movement of the kayak. V bottom is the feature that affects the tracking and maneuverability of the kayak. The presence of a V actually enables the kayak to travel in a straight line or track but reduces flexibility.

Factors that affect the hull shape include the degree of roundness at the bottom, the presence of V at various points on the hull, the presence or absence of a chine, or even how severe the chine is – chine is where the side of the hull and the bottom of the hull meet at an angle forming an edge below the gunwales.

The design of the hull is thus a significant factor that determines the stability of the kayak and the resistance of the boat to tipping and capsizing.

STABILITY

Flat-bottomed kayaks have more primary stability and are suitable for beginners, while the round-bottomed ones have lower primary or initial strength and more secondary stability.

Though flat-bottomed kayaks are preferred by beginners, they are not very safe as they capsize very fast when they begin to tip. Round-bottomed kayaks are more stable as they present more cross-section to the water when they are listed from the level.

The sea kayaks thus have more secondary stability as they have to ply in challenging conditions. The recreational kayaks, on the other hand, with their flat hull shape, have more primary strength.

The white water kayaks now have flatter hulls to allow them to just sit on top of the water rather than be in the water.

DESIGN OF THE COCKPIT

Kayaks in the olden days had a cockpit covering a larger area, but the materials used were not waterproof enough to cover the same. This fact led to the designing of more compact decks which encased the rider.

Eventually, as this was quite uncomfortable and difficult for the paddler to get out quickly, the modern kayaks emerged with the “Key-Hole” deck design. This is a cockpit that is elongated and large and shaped like a keyhole. This is easier for the paddler to get out in the vertical pin situation and is relatively compact due to the neoprene spray decks.

CONSTRUCTION OF THE KAYAK

Initially, the kayaks were designed with wood or foam models called plugs. This design is cut out and modified until the desired form arrives. It is then sanded down and smoothed off.

The next step involved making a mold or a cast from this original, which is then used to construct different versions.

Modern kayaks are designed with several prototypes and plug designs leading to the final kayak for testing, which is then refined and produced.

MATERIALS USED FOR KAYAKS

Fibreglass

Fibreglass is a material that is strong and light, and it is straightforward to use. They are also flexible enough to be molded to the desired shape. Maintenance of the fiberglass kayak is also easy, as it can be easily repaired using a resin kit.

The first step in constructing the fiberglass kayak involved making a mold. Layers of fiberglass are then pasted to the inside of this thick two-part mold. After it is set, the mold is split to leave the kayak's complete shell or hull.

Now a day’s fiberglass is used only in Slalom Kayaks due to the material's lightweight.

Rotomoulded Plastic

Plastic bases, which are made using a process called rotation moulding are used in most the modern kayaks. The process involves using plastic dust spun in a biaxial rotation mould at low pressure and high temperature.

A biaxial rotation mould is spun through two axis. The rotomould uses aluminium as it is sturdier and a good heat conductor. Though this is the most efficient way of producing high-quality plastic boats, the production cost is very high.

There are certain advantages of using plastic over fiberglass. Plastic is more resistant to impact as it is ductile.

MODERN KAYAKS

Modern kayaks are of many specialized types like sea kayaks, whitewater or river kayaks, surf kayaks, racing kayaks, etc.

Classification is based on what the kayak is used for, like the whitewater, surf, touring/expedition, light touring/day tripping, and general recreation. There are many sub-classes under these primary classifications.

SEA KAYAKS

A sea kayak is also popularly known as a touring or ocean kayak. This kayak is designed for paddling open waters like bays, oceans, and lakes. Sea kayaks have a covered deck and sometimes even a spray deck. They compromise manoeuvrability for cargo space, straight-line paddling, and extended journey comforts.

Sea kayaks are popularly used for marine journeys lasting between a few hours and weeks. They are large enough to accommodate two paddlers, plus their camping gear, water, food, and other supplies.

Distinct features of the sea kayaks include a longer waterline to assist in straight travel and storage space on the lower deck for cargo. For specialized straight-line tracking, sea kayaks have rudders of skegs.

Other features include stern profiles and an upturned bow for wave shedding, internal bulkheads numbering two or more for watertight inner sections enabling flotation and storage, which is waterproof.

The origin of sea kayaks dates back to the native boats of Alaska, Canada, and Greenland. These kayaks were made of wood and fabric till the 1950s. Sea kayaks of today are made with rotomoulded plastic, which first came into existence in 1984.

DESIGN OF THE SEA KAYAK

Sea kayaks can be mainly discriminated into two types – folding kayaks and rigid kayaks. They come in a variety of materials, designs, and sizes depending on what it is used for. The recreational kayaks are shorter and have wider beams and larger decks.

The sit-on-top kayaks are rotomoulded, and their cockpits are enclosed. The inflatable kayaks have quite a rigid frame with sponsons that are inflatable.

The surf skis are narrow and long and are used for Open Ocean racing purposes. Sea kayaks are generally between twelve feet and twenty-four feet long. The larger kayaks can accommodate two paddlers or sometimes even three.

Specialized boats are narrow, but in general, all sea kayaks are about 18 to 28 inches wide. The length of the kayak is determined by the amount of cargo that has to be carried in it and also the tracking ability required, which is the ease with which the boat travels in a straight line.

The longer the kayak, the straighter you can paddle it. It takes more work to turn. The width of the kayak determines the stability of the boat.

Above is a picture of a sea kayak made of epoxy, fiberglass, and plywood.
Fibreglass, rotomolded polyethylene, or Carbon Kevlar are some materials used to produce rigid production. More exotic materials, such as carbon fiber and foam core, are also used in the production of kayaks.

Kayaks constructed using the skin on a frame are built on wood or aluminium. This is then covered with fabrics like canvas, Dacron, etc., and also includes sponsors, which are inflatable tubes.

DECK, STEM, AND BOW DESIGNS

The bow is upturned in some kayaks to facilitate better performance in the wave and better ability to shed locks. Other kayaks try to achieve this with increased buoyancy in the bow.

Kayaks in which the stern is not obstructed ease self-rescue of certain kinds. Modern kayaks provide flotation in case of capsizing as they have waterproof bulkheads.

Decks of the sea kayaks also have hatched to access the storage space quickly.

Sea kayaks have tracking aids or steering gear like rudders and skegs. Rudders are usually attached to the stern. They are operated using the foot pedals, which are present in the cockpit via wires.

When a strong wind comes from other than the front, the paddler is assisted by the sterns and skegs.

PADDLES FOR SEA KAYAKS

There are three types of sea kayak paddles.

The European-styled paddles have two blades that are spoon-shaped on two cylindrical shaft ends. This type of paddle assists in accelerating fast, provides flexibility in maneuvering in whitewater kayaking, and is also used in sea kayaking.

The Euro paddles are usually made of expensive materials like carbon fibre, so they are lightweight. They are also sometimes made of aluminum, plastic, or even wood.
The blades are feathered and set at a right angle to each other.

Greenland paddles have narrow rounded blades full near the blade's root and oval-shaped near the tip. Some of the paddles have a “shoulder,” which is a sudden transition between the loom and the origins of the blades.

These paddles are not feathered like the euro paddles. The shorter Greenland paddles are called storm paddles. These are by applying a sliding stroke, and the hands must be moved toward the blades for every stroke.

Storm paddles are usually used only as spares or in very windy locations because there is tiny outboard to catch the wind.

Wing paddles are shaped like a wing. This paddle is very efficient in enabling the kayaker to produce more moving forward than any other paddle due to the lift produced by the blade while it moves through the water.

The wing paddle's paddling technique differs from the European style paddles and the Greenland style. These paddles are primarily used in racing and sometimes also in recreational paddling like touring.

SIZE OF THE SEA KAYAKS

Sea kayaks come in different dimensions and designs. The length of a typical sea kayak is between twelve to eighteen feet. Tandem kayaks range between fifteen to twenty feet. The width of a sea kayak is between twenty-two and thirty inches.

Touring kayaks are more comprehensive and range in width between twenty-two and thirty inches. Touring kayaks which are more expansive, between twenty-six to thirty inches, are used by bigger paddlers or even the more petite or average-sized paddlers who are looking more for initial stability and maneuverability.

Narrow beams provide more speed and lesser maneuverability. Such beams are between twenty-two to twenty-five inches wide and are used more by small or medium-sized paddlers.

The depth of the kayak is usually between thirteen inches to fifteen inches.

KAYAKING TRIPS

Many recreational kayaks operate over the weekend. Overnight camping is also popular among these recreational kayakers. These trips also combine watching wildlife along with kayaking.

The sea kayaks of today can carry a large number of equipment. These kayaks take people for longer than two weeks or more trips in the Arctic and tropical environments.

SAFE KAYAKING

The primary factor regarding safety is the paddler himself. Some kayakers consider the Eskimo roll to be safe open-water kayaking. But this can be difficult in heavily laden boats.

A few techniques exist for righting oneself without assistance and re-entering the kayak after a capsize. Many paddlers prefer to paddle with at least one other person as it is easier to climb back into the boat in the open sea with the help of the other boat and paddler.

However, experienced paddlers prefer to do it alone, and many of these open-water expeditions have been carried out by single persons.

It is pretty safe to go on your own as a lot of safety equipment is available. The safety equipment includes the compass, towing lines, manual pumps, repair kits like wet application repair tape, flares, spare paddles, and survival gear.

Apart from all this, the paddler has to take food supplies and a flask of hot coffee. GPS charts. Some people also carry GPS, charts, radios, lights, cell phones, and radar reflectors.

SUBCATEGORIES OF WHITEWATER KAYAKING

River running is touring down a river, enjoying the scenic beauty and the excitement of experiencing the challenging whitewater. River running trips can be short one-day trips or long multi-day trips.

Multiday trips are made with a river-toting raft which carries the cargo to enjoy a more comfortable experience without the burden of a heavily laden kayak.

White-water racing competitions are viral in this category.

CREEKING

Creeking is a subcategory of River Running. This involves highly technical and challenging rapids in the typical range of Grade/Class four to six degrees.

Creeking generally means kayaking from a higher gradient. This includes running ledges, waterfalls, and slides on smaller, tighter rivers. Sometimes this is also done on relatively larger volume rivers.

Kayaks used for creeking have certain features suited to the particular usage. They have higher volume displacement, and their bow and stern are more rounded. These features facilitate a higher safety margin and protect from pinning.

This craft is also designed to resurface quickly while still controlling as they come off more significant drops. The rockers in these creek boats are increased or raised on the bow to enable them to cross obstacles and obstructions in the river.

The competitive form of this whitewater kayaking is extreme racing. This involves the kayakers racing down steep and usually dangerous whitewater sections.

PLAYBOATING

Playboating is an exciting kind of kayaking. This is freestyle or Rodeo and is more gymnastic and artistic.

It is a category of kayaking wherein the paddler performs various complicated moves in a single spot, referred to as the playspot. Playboating is a paddling equivalent of skateboarding or BMX.

This is different from other types of kayaking in a sense. In contrast, other kayaking involves going from one specified point to the other, and playboating is usually performed in one spot in the river. This is typically a pour-over or a wave or even a hole where the surfer works with and against the water forces in the river all the time, performing various manoeuvours.

The playspots are stationery features like standing waves which may break fully or partially, holes and stoppers where water flows back, creating a retentive part or an eddy line, the boundary formed between the slow-moving water at the edges of the river and the faster water.

Playboaters perform stunts like spinning the boat in all possible directions, vertical moves like cartwheels, loops, blunts, pistols, donkey flips, etc.., and surfing. Paddlers even perform many aerial tricks using the speed and bounce of the waves.

Playboating is also performed in dynamic moving features like haystacks which are large boils, whirlpools, or on flat water, referred to as flat wheeling. Play spots are generally found on artificial weirs, artificial whitewater courses, natural whitewater, and sometimes on tidal races in the ocean.

Play boaters perform various moves like front and back surfing, spins in different axes like air screws, cartwheels, air loops, stalls with the kayak vertical on both ends, getting airborne or bouncing the boat on a wave or submerging part of the kayak, which pops up while re-emerging to name a few.

After each move, the playboater stays surfing rather than being washed off. Due to the technologically advanced designs and features of modern boats, playboating has gained immensely in popularity.

Modern playboats are made of high-quality plastic, which is much more robust and sturdy than the ones made of glass fiber or wood. Other features of playboating kayaks include low volume in the bow and stern, which enables the paddler to submerge the kayak ends effortlessly.

Playboating competitions are freestyle and are also called rodeo in the United States. Though play boating is mainly done for fun, these competitions are also gaining popularity. In a set time, the paddlers must perform as many moves as possible, with additional points given for style.

The Park and Play are when you take your car to the bottom of the river to play a boat. Playboating is considered to be much safer than the Whitewater River running.

SQUIRT BOATING

Squirt boating started with using low-volume boats to perform various moves in whitewater. Squirt boating is a prerunner to playboating. The design of the squirt boat is low volume throughout. These boats are long and flat.

Play boats are usually custom-built to individual weight, inseam, and personal preferences; they are made using composite materials instead of plastic. Squirt boat moves include moves completely submerging the craft and the paddler, such as the ‘mystery move.’

In the mystery movie, the paddler and the boat are entirely submerged in the river's flow, sometimes even for up to half a minute.

BOOFING

Boofing is one of the techniques of whitewater kayaking whereby the kayak's bow is raised during freefall or while descending a waterfall. This technique helps the kayak to avoid submerging fully in the water. This is done by ensuring the kayak lands flat when it hits the waterfall's base.

The term boofing is an onomatopoeia derived from the sound created when the kayak hull makes contact with water at the waterfall's base.

Perfect boofing requires exact timing. The waterfall's final stroke should be powerful enough to force the boat's bow up. Whether you need to boof or not depends on the anatomy of the waterfall. If the base is shallow, you need to boof, whereas if the fall is higher than twenty feet boofing should not be done as it may cause injury to your spinal cord.

SURF KAYAKS

Surf kayaks are also known as “Surf Skis.” They are narrow, long boats specialized for surfing, breaking waves, and surf zone rescues.

Surf kayaks are usually racing kayaks that are very fast. The surfer must be very experienced and have the skill to achieve stability, as the hulls are narrow.

There are traditionally two primary varieties of surf kayaking. They are the High Performance or the HP surf kayaks and International Class or the IC surf kayaks.

The HP kayak's features include many nose rockers, little or no tail rockers, flat hulls, sharp rails, and up to three fins. These features enable the surfer to generate a lot of speed, and he will be able to make dynamic moves.

IC kayaks are at least three metres long, and their hull is convex shaped. Surfing on these kayaks is generally smoother and more flowing. Materials used to construct International Kayaks are either tough and heavy plastics or the super light, super stiff but fragile foam-cored Kevlar carbon.

Apart from surf kayaks with a closed cock-pit there is also the open cockpit design called the Waveski. Waveski is similar to surfboards regarding the construction, paddling technique, surfing performance on the waves, etc., are concerned. Surf kayaking has become extremely popular these days.

SURF SKI

The surf ski is a variant of the flatwater racing kayak, which is highly specialized. It has an open cockpit, around twenty-one feet long and only eighteen inches wide. Using the surf ski requires expert balance and skill in paddling.

Many surf races are held in New Zealand, Australia, and South Africa. Surf skis are popular in the United States for lake, ocean, and downriver races.

Surf skis are light recreational watercraft with long and narrow displacement-type hulls. It also has an open cockpit and a rudder controlled by a foot pedal. Paddles used are double-bladed with wing blades that are contoured for more efficiency.

On the other hand, wave skis are around ten feet or even lesser in length. The bottom of this is planned, and fns or skegs are present. These wave skis are similar to surfboards used in surf play.

Surf kayaking is also called “surf canoeing” in the United Kingdom and Ireland.

DESIGN, SIZE, AND CONSTRUCTION OF SURF SKIS

Surf kayaks are typically narrow and long, about twenty feet long, and between sixteen and twenty inches wide.

These kayaks are very fast and track well and are not stable, flexible, or manoeuvrable.

Surf kayaks or surf skis are made of composite materials like cloth made of carbon fibre, fiberglass, or Kevlar. This is bonded with a polyester resin or epoxy. To maintain the light weight of the kayak, the layers of fabric and the resin or epoxy used to bond are kept to a minimum of what is required for structural integrity.

Surf skis are popular mostly in warm coastal regions like Australia, California, Hawaii, and South Africa. This is because paddling a surf ski involves contact with water. In cold waters, paddlers prefer to wear a wetsuit.
The hull shape of the long-distance racing surf skis is longer and has sharply pointed bows and understand rudders than the lifesaving surfskis. Surfskis are also different from the long-distance racing kayaks.

Surf skis are longer and have more longitudinal curvature or rocker. They are also more stable, and the wave riding ability is enhanced to a great extent as the surfer sits more towards the centre of the craft.

There are certain things that a long-distance surfski racer should have to ensure smooth and safe surfing. They must have sufficient volume in the bend, providing buoyancy while punching through the surf.

They must also have an extended water line, which can use the ocean swells. A sleek and narrow shape will ensure reduced water resistance and enough stability to make paddling possible in rough conditions.

Many surf lifesaving competitions are held in countries like New Zealand, Australia, and South Africa, where surf skis are used. These surfski racing competitions are managed and conducted by the International Life Saving Federation.

The ILS standard of the surfski race is about 700 m from the starting point in the water. They usually go around a series of buoys and back to the beach. With more technically advanced crafts, it was only a short time before long-distance races emerged.

Early races included the 46 km race from Scottsburg to Brighton in South Africa held in the year 1958. Another event which is held once in two years, started in the year 1972. This is the 240 km event from PE to East London in South Africa.

The most important event of them all is the Molokai race in Hawaii. This is a 60 km race and was first held in the year 1976. Long-distance surf skiing races have become more prevalent in the USA, Australia, New Zealand, and other Pacific countries.

Many events are held in these races, like the Surfski, Surface, Paddleboard, Ski relay, Taplin Relay, Oceanan, etc. These races are stored in the ocean, bay, lake, or river.

If the paddler is tossed into the water, a “wet entry” is allowed. The surfer can climb back into his kayak and continue racing without draining the kayak off the water.

Surfskis originated in the 1920s, basically in Newcastle Beach, Australia. Initially, the surfskis were designed for paddling out and rescuing drowning swimmers. The surfboats were lightweight rowing boats with a crew of five responsible for rescue work in and behind the surf line.

These boats were expensive and required a lot of skill to be used effectively. Over the years, the surfskis became narrower to facilitate speed. The narrow width makes it easy for the surfer to cut across big waves.

WOODEN KAYAKS

Wooden kayaks are constructed using slender wood enclosed in fiberglass. This is popular because the cost of epoxy resin has gone down recently.

There are two main types of wooden kayaks – the Stitch and Glue and Strip Built.

Stitch and Glue designs use marine grade plywood about a quarter inch thick. The procedure involves the cutting of the pieces of hull and deck. Small holes are then drilled along the edges, and copper wire is used to stitch pieces together through the holes.

To make it more secure, the pieces are glued with epoxy resin after they are stitched together, and the seams are reinforced with fiberglass. The epoxy is then allowed to dry, and the stitches are removed. To strengthen the structure, the entire boat is then covered with fiberglass.

One drawback of this construction method is that since the plywood is not flexible enough to form curves, the choices of designs are limited. If you are building a kayak for the first time, this is a good choice as the labour and skill involved is much lesser than for the strip-built kayaks.

Strip-built kayaks are similar in shape to fiberglass kayaks but are lighter and more rigid. The deck and the hull are built with lightweight wood. Thin strips of this wood, usually cedar, pine, or redwood, are used for this purpose.

The edges of these strips are glued together round about a particular form which is stapled and clamped in place and allowed to dry. A wooden shell is thus formed, though it could be stronger.

The strength of the structure of the kayak comes from the fiberglass layer and the epoxy resin.

SKIN-ON-FRAME KAYAKS

Several kayaks come under the skin on the frame type. These boats are considered more traditional by design, materials used, and techniques for construction. These kayaks are lighter and made of driftwood pegged or lashed together. Seal skin is then stretched over it as these are readily available in the Arctic regions.

Skin-on-frame kayaks of today have canvas or nylon cloth instead of the seal skin and are covered with neoprene, paint, a hypalon rubber coating, and wood and aluminum.

FOLDING KAYAKS

Folding kayaks are particular types of skin-on-frame kayaks. These kayaks have descended from the original Eskimo kayak.

Folding kayaks consists of a collapsible frame of wood, aluminum, or even plastic with a combination of skin or water-resistant and durable fabric. These kayaks are fitted inside the hull with integral air sponsors. Thereby increasing their stability and making them hundred percent safe and unsinkable.

Folders are very famous due to their longevity, stability, and durability. Folding kayaks are very similar to the original skin and frame kayaks as they have the same padding characteristics.

Folding kayaks always exhibit similar paddling features as the authentic skin-and-frame vessels of the circumpolar north. Of all modern kayaks, they are closest to the skin-and-frame boats of the precedent.

MILITARY KAYAKS

Military kayaks came into existence during the Second World War. These were used mainly by the British Commandos and Special Forces. These kayaks were used in the Operation Frankton raid on Bordeaux harbor.

After the war, the folding kayak became popular for training and operations.

The sealed hull craft, which is unsinkable, is a derivative of surfboards and was developed mainly for leisure use. Variants of this type include the planning surf craft, touring kayaks, sea marathon kayaks, etc.

The manufacturers design many new variations for leisure paddlers. These variations of the sit-on-top variety are often fitted with a rudder or a skeg for more stability.

This craft has scupper holes and tubes running from the cockpit to the bottom of the hull. These holes facilitate the draining of the water which enters the cockpit. Sit-on-top kayaks are typically designed for one paddler. Sometimes they are designed to accommodate two, three, or even four paddlers.

This variety of kayaks is mainly used for fishing and scuba diving. This is because this variety of kayaks facilitates the paddlers to quickly enter and exit the water, change positions, and access the hatches, which is essential for fishing and scuba diving.

The sit-on-top kayak is designed so that the seat is slightly higher than the water level. Due to this, the centre of gravity for the paddler is higher than in the traditional kayak.

To compensate for this centre of gravity, the sit-on-top kayak is wider than the traditional kayak of the same length. As a result of this, this kayak is slower than the others.

RECREATIONAL KAYAKS

Recreational kayaks are used by people who just want a leisurely paddle on a lake, people who want to do some fun fishing, or just photograph the scenic beauty.

Recreational kayaks are sold the most as more and more people are taking up kayaking as a hobby.

The recreational kayaks are designed for the comfort of the leisure traveler. The large cockpit makes it easier for the paddler to enter and exit.

These kayaks are about twelve feet long and lack cargo capacity. This is because these kayaks are not used for long-distance travel.

The recreational kayaks also have wide beams, providing more stability to the boat. Materials used for construction are relatively inexpensive, so more people can afford to take kayaking as an enjoyable hobby. Being a type of touring kayak, recreational kayaks could perform better at sea.

FLATWATER RACING KAYAKS

Flatwater racing kayaks are called sprint boats. These kayaks have three types: the K1 for single paddlers, the K2, which is a kayak for two paddlers, and the K4 for four.

These kayaks are the ones that are used for racing purposes. Men and women use them even at the Olympics in the 200m, 500m, and 1000m segments of the World Championships.

Flatwater racing kayaks are made of lightweight materials like carbon fiber, fiberglass, Kevlar, etc. These kayaks can be used only on flat water. Flatwater kayaks are narrower and more unstable than the other kayaks. They are also costly as they are primarily used for racing purposes.

Paddling a flat water kayak is tricky and requires much expertise. In the hands of an experienced paddler, these kayaks are very fast. They have a broader beam that is wider than the paddler's hips, allowing for a long and narrow shape of the boat, reducing drag.

Flat water racing kayaks, due to their length, come with a rudder controlled by the paddler's feet. This helps with the turning of the boat. These kayaks have quite a large turning radius.

SLALOM KAYAK

Slalom kayaks are designed with low-profile decks and a flat hull for more manoeuvrability. These kayaks are generally made of resin reinforced with fiber like epoxy or polyester reinforced with Kevlar, glass fiber, carbon fiber, etc.

Therefore, these kayaks are stiffer and have hard skin than those made of non-reinforced plastic like rotomoulded polyethylene. Since these kayaks are more rigid, they are fast and accumulate fewer scratches.

Slalom is a competitive form of kayaking, the only whitewater event featured in the Olympics. This event involves racers going from top to bottom of a river section designated as rapidly as possible. A series of double poles suspended vertically over the river called gates must be negotiated skilfully.

Usually, there are between 18 and 25 gates that have to be navigated in a sequence. The direction of navigation is also specified the green gates have to be negotiated in the downstream demand, while the red gates have to be arranged in the upstream order.

Slalom competitions on a professional level must have kayaks of specific length, width, and weight. These must be made out of carbon fiber, fiberglass, or Kevlar composites, as they have to be lightweight and have faster hull speeds.

INFLATABLE KAYAKS

Inflatable kayaks are particular kayaks that can be carried around in a carry bag. These kayaks are made of neoprene called the hypalon, PVC, or polyurethane coated cloth.

These kayaks are inflated with the help of hand, foot, or electric pumps with low-pressure air below three PSI.

Inflatable kayaks have been chiefly used on rivers or calm waters. Recently, many manufacturers have developed a sit-on-top kayak with a folding kayak design that is also sea-worthy.

Inflatable kayaks are very convenient as they are foldable and easily portable. They are pretty stable with a small turning radius. Although easy to master, much more effort is required to paddle these kayaks, which are much slower than traditional kayaks.

PEDAL KAYAKS

Pedal kayaks use pedals to propel the boat as a replacement for paddles. These pedals are attached to propellers or underwater flippers to move the vessel.

This is convenient because the kayaker’s hands are free for other activities like fishing. One risk factor is the absence of a paddle which is of immense help in capsizing prevention and self-rescue.

MULTIHULL OUTRIGGER KAYAKS

Outrigger kayaks have hulls that are smaller and attached to the main hull. They are either single or double. This provides more stability for fishing, kayaking, or touring.

Twin-hull kayaks have been in the market for many years. White water kayaking and kayaking for fishing purposes use inflatable models. The polyethylene models are also used for fishing purposes and recreation.

The latest models of twin-hull kayaks are operated from the inside of the cockpit. The kayaker's legs stretch to the bottom of each hull, thereby providing improved stability and control. This also enables the kayakers to use the kayaks for surfing, fishing, and touring in multiple positions, including standing.

FISHING KAYAKS

In the olden days, the artic native people did not use kayaks for fishing. Recently, fishing for sporting purposes using a kayak has become a popular hobby with many people.

This hobby is popular in fresh and saltwater, predominantly in warmer regions.

The fishing kayaks come in a lot of different varieties which are specially designed. These are similar to the recreational sit-in or sit-on-top types. These kayaks have wide beams to provide increased lateral stability. Some kayaks are equipped with outriggers for strength.

The twin hull models of late are very stable, and one can paddle and fish in a standing position. Kayak fishing is a trendy sport today. This is because entry into the competition is straightforward.

Kayaks are readily available and relatively inexpensive. With the various inflatable models available in the market, kayaks are also easy to store and maintain. Launching a kayak is also relatively easy. Customized kayaks are also available across the US.

WAVEWALKING OR STANDING KAYAKS

Paddling in kayaks in a standing position is a very recent development though this kind of floating while standing has been in vogue for many centuries in canoes. Canoes. The twin-hull kayak designs are very stable and enable the paddler to paddle in a standing position.

This kayaking is done on flat water, rivers, and at sea, including in the surf. The term commonly used for this paddling is "Paddle Skiing."

Standing while paddling is becoming very popular with people who do a lot of fishing. This is because, in a standing position, you can scout more effectively.

DIFFERENCE BETWEEN MODERN AND TRADITIONAL KAYAK

Modern kayaks are different from traditional kayaks in several ways. The design, manufacturing process, and usage are vastly different today. Most kayaks produced today are for commercial purposes and cater to kayaking as a hobby for many people.

While the traditional kayaks were built using personal experience and knowledge from orally transmitted sources, the modern ones are developed using computer-aided design or CAD software programs. There is even special kayak design software available.

Most modern kayaks are the sit-on-top variety with a paddleboard equipped with a seat. Modern kayaks are also considerably shorter than traditional kayaks, mainly designed for whitewater and surfing applications.

Modern improvisations include increased width, like recreational and fishing kayaks. Stability is also increased with the help of twin hulls or outriggers, as in the catamaran kayaks and W kayaks. Some modern kayaks are also equipped with a motor, usually electric.

Though some kayaks are made today using traditional designs, they differ from native kayaks in several ways. Modern kayaks are fitted with seats and foot braces unthinkable in the native kayaks. They are also equipped with bulkheads, hatches, flotation, and eyelets absent in the native kayaks.

In contrast to the traditional kayaks, modern kayaks thus reflect the diversity of usage and the vast advancement in manufacturing technology and innovative designs.

KAYAK FISHING AS AN ENTERTAINING HOBBY

The sport of fishing using a kayak is called Kayak Fishing. For a long time, the kayak has been the mode of accessing spots where abundant fish are found. Fishing as a sport has gained in popularity today due to the sophisticated equipment available in the market.

Sophisticated equipment includes electronic fish finders, rod holders, live bait containers, etc. This equipment has ensured that kayaks are as popular as the larger fishing boats.

Though kayaks can never give you the enjoyment of deep water fishing like the bigger fishing boats, they have enough range and potential to place them in waters where a lot of things are possible. Originally it was thought that a fishing boat with a speed of five to ten knots was only capable of trolling.

Discovery that even lesser speeds can facilitate trolling has made kayak fishing immensely popular.

Kayak fishing techniques are similar to the methods applied on bigger fishing boats. The only difference is in the setup, i.e., how the equipment is fitted to the kayak.

Types of kayaks used for fishing include rotationally molded kayaks made from polyethylene, which are very durable and affordable. Kayak fishing requires stable and comfortable boats.

The recent introduction in the market is the twin hull kayak which is very stable to enable paddling and fishing in a standing position. This is also good for kayakers who find it challenging to sit in a place for an extended period.

Many people take kayak fishing up as a hobby due to the immense excitement of catching a game fish from a kayak. Some anglers have even launched kayaks from the larger boats offshore to enjoy the excitement of trying to hook up and fight large game fish from a kayak. The excitement of battling big fish even as they try to pull down the very craft you are on is tremendous.

Florida is one of the places where kayak fishing is prevalent. Kayak fishing tournaments are also held yearly, providing a lot of excitement. It is so popular that manufacturers have come forward to sponsor anglers to promote their products.

WHAT IS A FLYAK?

Conventional kayaks, which are hydrofoil adapted, are called flakes. Two hydrofoils are designed in such a way that they raise the hull clear of the water, which increases the speed. With the help of this, speeds of up to 27 km/hr can be achieved in calm waters.

Flyaks have two hydrofoil fins situated below the water creating a lift. At times great speed is achieved when the entire hull is lifted about 15 cm from the water reducing the drag to a great extent. The rate reaches more than twice of conventional kayaks.

Flyaks came into existence in the year 2005. Einar Rasmussen and Peter Ribe in Norway designed it. Though the method of hydrofoil was popular in motorboats and man powered water crafts, this was the first time it was incorporated into the design of the commercial kayak.

A ROYAK IS…

A royal is another variation of the sit-on-top kayak. This combines the features of a surfboard and a kayak. Royak was invented by Roy Grabenguer in 1968, and the craft with rotomold process was popularized by Tim Niemier.

Royak was designed to achieve a non-sinkable boat that can quickly escape even in rough waters. Royak also had enough storage space for the gear and was flexible and easily manoeuvrable. Other features include its lightweight and comfortable.

Royaks of today effectively mix the features of both the sit-on-top and the sit-inside kayaks. They are thus low, stable, and have an open cockpit. This enhances the performance of the craft. This versatile, multisport design provides the paddler immense comfort in various water conditions.

HOW TO CHOOSE YOUR KAYAK?

When you are planning to purchase your first kayak, it must be confusing for you. You must wonder whether you are buying the right style, paying the right price, etc.

There are three classifications as far as the structure of the kayaks is concerned.

The rigid kayaks are made of plastic, Kevlar, carbon fiber, wood, fibreglass, folding boats, and inflatable boats.

Rigid kayaks are more popular. Plastic kayaks are tough and can weather a lot of hardships. These are also the heaviest of them all and least expensive. One disadvantage of this is once it is damaged, it is tough to repair and most of the time, it must be replaced.

The fibreglass boat is much lighter and more expensive than the plastic one. This boat may be damaged frequently but can be repaired effectively and efficiently.

Boats made of composite materials like graphite, carbon fibre, Kevlar, etc., are even lighter and more expensive.

The wooden boats are artistic and aesthetically beautiful. A rigid kayak that is smooth and warm is lovely and appealing. Wooden kayaks are available as a kit that can be purchased and assembled independently. Wooden kayaks are easy to repair and maintain.

Folding boats, on the other hand, are easily portable and also easy to store. This boat is collapsible and made of fabric stretched over a wooden or aluminium frame.

Though the folding boats are a little more expensive, they last longer than the typical hardshell and have better resale value. They are tough, stable, seaworthy, and flexible, but they are speedy as the hardshell boats.

Inflatable boats are easily stored and portable. They are also the least expensive kayaks. These are easy to maintain and get in and out of the water.

Apart from deciding on the purchase of kayaks based on the structure, the purpose or type of boating they are required for is also essential. For example, boats designed for long-distance touring differ from those used for whitewater kayaking.

There is no such thing as a multipurpose kayak. You must decide on your type of kayaking activity and the paddling situations and carefully select the boat that will fulfill your requirements.

There are a few factors that you have to take into consideration before you purchase your kayak.

Your boating activity – make sure you get a kayak suited to the type of boating you anticipate doing. This is the most crucial factor to be considered. How often you will be kayaking is another aspect to consider.

Paddling experience – if you are a novice, you will probably look for a kayak with initial stability, while an experienced paddler will look for a kayak with good final stability.

This is because kayaks with low initial stability tip easily, making them uncomfortable for beginners. This initial happiness means the final stability is good, especially in more giant waves, which an experienced paddler will recognize and prefer.

Another thing is that while an experienced paddle would go for a tighter cockpit, a beginner will usually prefer a bigger one to enable him to get in and out quickly. If you are worried about how you could perform an Eskimo roll to get back onto the boat in the event of tipping or about how you will escape from a tipped-over cockpit, then you should go in for the sit-on-top model with a seat and footwells.

Weight and portability – storing, transporting, and getting the kayak physically in and out of the water are other factors you must consider before buying one.

If you have problems with any of these factors, you should go in for an inflatable boat of good quality. Alternatively, you can buy the lightest hard shell you can find and afford.

Another essential factor to be considered is whether you need a single-passenger or a double-passenger kayak. Double kayaks are perfect for couples and families. These are more stable and faster but are less easily manoeuvrable than the single kayaks.

If you are going in for a single kayak, you must ensure enough storage space for the stuff you will be carrying on long touring. You can leave this aspect alone if you only leisurely kayak for short periods.

Make sure the seats are comfortable and stable. You should go in for a snug-fitting seat if you are whitewater kayaking. If you are touring quite a bit on your kayak, you should look for a heart with room to stretch and change positions.

As mentioned earlier, beginners usually look for a kayak that is initially stable and experienced kayakers prefer a kayak with good secondary stability. My initial strength is that the boat tends to tip over, though initially, they are perfectly upright and seem stable.

Final stability is the tendency of the boat to tip over. Good absolute stability means the ship will seem to tip over but will constantly be in that position and not tip over. No ship can have both initial and final stability. One can determine whether the kayak has initial or final stability with the hull's shape.

The stability of the kayak also depends on the speed. If the kayak is highly stable, it will be slow on water. It will also be more comprehensive than the fast boats, which are usually narrow.

Control is another aspect to be looked into. By control, we mean how well the boat turns and tracks. Usually, a kayak can either turn quickly or track straight. Very rarely can kayaks do both well. The length of the kayak determines how well the boat rides and tracks.

While a shorter kayak is easily manoeuvrable, the longer one will track better.

Another factor you must look into is the bottom curvature of the hull. Curvature is between the points where the hull meets the bow and the stern, which is out of the water and higher than the middle area of the hull.

This upward curvature varies from boat to boat. A vessel with a higher degree of curvature will turn more quickly but trackless accurately than a lower curvature. Paddlers usually go in for kayaks with medium curvature.

A lot of extra options are available, which you can choose from. They include access hatches, a sprayskirt, deck fittings, a cover for the cockpit, floatation bags, a handy holder for carrying water bottles, etc. Opting for the right accessories can enhance your kayaking enjoyment.

A rudder is an option many people have different opinions about. Experienced paddlers feel they are too good to use a rudder, and beginners are advised not to start depending on them. Others say when it is there and convenient, why not use it.

It certainly makes sense to keep a rudder handy. In consistently extreme weather conditions like strong wind and waves, rudders provide the right amount of correction in the course and allow the paddler to enjoy the scenery and focus on their strokes instead of the tracking.

The price factor is ultimately the most important one. After you decide on the kayak you are going in for, your final choice depends on the price factor. Beginners' plastic models may just cause around $250, while the expensive ones cost around $1500.

Fibreglass models cost between $1000 and $3000, while the more exotic boats made of composite materials may cost even more.

The affordable inflatable boats cost anywhere between $250 and $2000. Folding boats cost around $1300 for beginners and up to $ 4500 for the top-notch models.

TECHNIQUES FOR KAYAKING

A kayaker should be able to operate their upper and lower body independently. If followed, a few techniques will make learning to paddle very easy. Of course, as the proverbial saying goes, practice makes it perfect. Keep practicing, and you will eventually be a great paddler.

KAYAKING FOR BEGINNERS

Kayaking for beginners starts with practicing to focus on using their shoulders, arms, and torso to power their paddles. Beginners should first paddle on Class II White-water Rivers by utilizing the strength of their upper body muscles to work the paddles.

With the strong arm style of paddling, kayakers even advance to class III Whitewater Rivers. But then, this strong-arm paddling is highly limiting. Paddling with a lot of power and force over some time makes our muscles stiff with tension and may also result in frequent tipping over when the water comes around us with great detail.

KAYAKING FOR INTERMEDIATES

Kayakers are usually thrilled when they discover the power of steering their boats with the help of their knees and hips. Lower body muscles like the hips and knees can effectively control the left to rotate the kayak properly. This is like using the boat as a giant rudder to steer in the right direction.

One advantage of doing this is it leaves your upper body muscles free to concentrate on propelling the kayak forward. The trick is to learn how to control the boat with your lower body and the paddle with your upper body. If you can do this effectively, you can be on your way to becoming an expert paddler.

KAYAK TECHNIQUE 1 – FORWARD SWEEP STROKE

An excellent whitewater river trip depends on a good technique. The kayaks that are paddled on whitewater are designed in such a way that they turn very easily and quickly.

The boat tends to spin in undesirable directions due to the waves and currents in the Whitewater River. The kayak can be controlled and turned in the order you want to with the help of sweep strokes.

90-degree Rule – after positioning the hand on the paddles, hold it on the head. The next step is to adjust the position of the writing in such a way that the elbows are at a ninety-degree angle.

Beginners need to avoid holding hands too close to the paddle shaft. If your hand position is correct, you get good power and endurance, and also the risk of injury is minimized to a great extent. Marking the work on the paddle with tape and consciously keeping to it will significantly help.

PADDLER'S BOX

Your straight arms, the paddle shaft, and chest make the paddle box. Your arms should be straight whenever you apply power for your paddle strokes. The paddle should also be as far away from the body as possible.

While you power the paddle with straight arms, you must apply pressure by rotating your torso and not bending your elbow. It is essential to get these techniques perfected.

You must not bend your elbows, especially at the end of the stroke, i.e., while recovering from a stroke and setting yourself up for the next.

HOW TO ROTATE THE PADDLER'S BOX

Place the paddle in water by rotating the paddler's box to one side. Make sure the blade of the paddle is completely submerged in water. All through the process, we must consciously keep our arms straight. The paddle must be kept as low as possible and parallel to the water's surface.

EXECUTING THE SWEEP STROKE

The paddle has to be swept in a wide arc from the bow, the front end of the kayak, to the stern, the rear end.

Again make sure the arms are straight and power the paddle with your powerful torso muscles. You can use digital cameras or video your paddling to identify and correct the mistakes.

KAYAKING TECHNIQUE – KEEP THE BRACES LOW

The support you occasionally need while kayaking in whitewater can be obtained by bracing the water surface with the kayak paddle.

This is usually for maintaining or regaining balance and staying upright in the kayak.

There are a few principles that can help you with effective bracing.

- Keeping the face of the paddle flat on the surface of the water can be either the power face or the back face.
- The paddle shaft has to be held in a position parallel to the water's surface. It should also be low.
- The Centre of gravity has to be maintained low by keeping the arms down and sitting with an aggressive posture upright.
- Remember to brace on the down current side. This is usually the direction in which you are going. Eddy currents are generally in the order opposite to the flow of the primary current.
- Arms must be kept straight and low in the front i.e., you must maintain your paddler’s box.
- You do not have to bother much about whether your braces are high or low. All you have to do is when you feel you need the support, just put the paddle flat on the water surface face down as early as possible. You just have to remember to keep it low.

Paddling aggressively is an effective way to receive support and stay upright, just like you do by bracing. If you need to brace to regain support, you must immediately resume aggressive paddling. This is essential to help you through the rapid.

COMMON PADDLING MISTAKES

Kayaking skills cannot be acquired by intuition. You must train and learn the paddling skills to avoid mistakes and successfully perform White-Water and Sea Kayaking.

A few of the mistakes are given below.

Beginners initially hold their paddles, hugging their bodies. They try to propel their kayaks by bending their elbows.

Avoid paddle hugging - This is an incorrect way of paddling. What the kayakers need to do is to maintain a strong paddler's box even as they paddle. They must extend their arms straight in the front while swimming. Holding the paddle as far away from the body as possible also helps.

Rotate your torso – People learning how to paddle usually lock their torso and shoulders in a forward position. To use the torso muscles maximum to generate power, kayakers must keep their arms straight and perform a correct torso rotation. Doing this is also important in another aspect. It helps in avoiding injuries to the shoulders and arms while paddling.

Do not brace in the air – When they need support, beginners raise their paddles very high in the mood to brace. When they find the river tossing their boats around, they increase the paddles even higher.

When bracing in the air, you do not get any support from bracing on the water. This results in a high centre of gravity, and most often, the boat flips over, and paddlers are forced to swim.

To avoid this, keep the paddler's box low on the decks. Raise only one hand at a time to perform a vertical stroke like the forward paddle.

Do not freeze up – Many beginners tend to freeze up when the whitewater action overwhelms them. They tend to stop paddling immediately, which results in the kayak tipping over.

All you have to do is maintain aggressive paddling to get through the rapid. You must correct the course by paddling more aggressively when the situation is complicated.

Do not lean back – When big waves crash on their faces and heads, beginners tend to lean back as a natural reflex. But you must consciously avoid doing this.

You must maintain an upright posture, lean forward aggressively, and paddle constantly. Especially when it is too late to avoid the wave, you will be knocked back very quickly if you count back.

The best thing to do is paddle forward aggressively and punch through these waves while maintaining your rhythm. Alternatively, you can stab the lock in the gut using the paddle as a brace letting the wave crash over your head and continue forward paddling.

Do not shift your body weight to the upstream side – Most beginners flip their boats as they tend to lean their body weight towards the upstream side of the ship. This happens so fast that the water slams their heads before they can even realize what is happening.

This can be avoided by maintaining control over the weight and edge and ensuring you paddle brace on the downstream side of the boat.

USING THE FORWARD PADDLE STROKE TO PROPEL KAYAK

Even though the river assists in the forward momentum, whitewater kayak paddlers, in navigating the boat forward, need to use their torso rotation to generate powerful and high endurance strokes along with the current across every day and sometimes even against the wind in emergencies.

Torso rotation is essential to generate this kind of explosive power and paddling for kayaking.

HOLDING THE KAYAK PADDLE

It is essential to learn the proper method of holding the paddle. This is the only key to developing good body mechanics and powerful, controlled, and efficient paddle strokes.

There are a few factors to be looked into to achieve this. Choosing the paddle of the correct length is one of them. Choose a paddle as tall as you can reach with your second knuckle.

You must go in for shorter paddles if you paddle a squirt boat or other low-volume kayaks. Inflatable kayaks also need longer paddles.

Another factor you have to be careful about is how you set your hand position on the paddle. Place the paddle shaft over your head and elbows held at ninety degrees to achieve the correct position.

After marking this position on the paddle shaft, maybe with tape, you can just follow this position consciously, making sure your hands do not drift closer as the day progresses.

The following essential aspect is the control of the right hand. The right hand should hold the paddle on the right side used for paddling the kayak.

If you need to get the paddle blade in position to paddle on the left side, the shaft will be rotated on the left hand.

When you are traveling, make sure you take your paddles. It is challenging to control the paddle using the right-hand control.

The paddler's box is another essential thing to be remembered. It is a square produced by your chest, straight arms, and the paddle shaft. You must hold the paddle as far away from your body as possible by reaching out with straight arms.

Remember to keep the paddle and your hands as low as possible. If you practice and maintain this paddler's box throughout your journey, you can achieve tremendous power and endurance and be free of the risk of injuries.

JOIN A BOATING CLUB

It is an excellent idea to join one or more boating clubs where you can meet other kayakers and be invited to the private river and club trips. There are a lot of paddling clubs, especially in California.

The Gold Country Paddlers, California Floaters, California Kayak Friends, Loma Prieta Paddlers, etc., are a few of the well-known ones.

KAYAKING SKILLS FOR CLASS II

As we have seen earlier, novices need to have some basic skills for kayaking on their own without an experienced kayaker to lead them and safely navigate a class II river.

Apart from the wet exit, Eskimo roll, forward stroke, sweep stroke, brace, etc., beginners must also have skills in ferrying, eddy turn, swimming in whitewater, and recognizing and avoiding hazards.

Ferrying means maintaining the bow on an upstream angle and paddling across the eddy line. The main thing to do here is to keep the upstream tip even while floating in the current across the river.

Eddy turn is used to enter and exit eddies. Doing this can be good fun if done correctly or can end in tipping your kayak if not done correctly.

When your kayak tips over, you must float on your back with your feet up after getting in that critical breath of air. You must just hang on to your paddle. Keep the other hand free to grab the rescue boat as soon as it arrives. Kicking your feet to assist the rescued boater in towing you to safety.

It is essential to identify hazards such as ledge holes, pour-overs, strainers, and undercuts. Make sure you avoid these hazards. If you cannot do that and come in contact with a rock, hug the rock tight and hang on. Then slowly wiggle forward or backward to get out of there as soon as possible.

PROTECTING YOUR SKIN

It is essential to protect your skin from the sun's harsh rays. Constant exposure to the sun's rays when you kayak for long periods can damage your skin.

Your skin will be affected in several ways, like skin burns, premature aging, and in extreme cases, even skin cancer. Various sunblock creams are available in the market today, which will help. These sunblock creams contain blocking agents like UVA and B.

ELTA MD Skincare Sun Block, Blue Lizard Sun Block, Trader Joe’s Sun Block, REI Sun Block, etc., are well-known sunblock creams.

You can refer to the “Cosmetic Safety Database” developed by the “Environmental Working Group” for information on the safest and best sunblock cream you can use.

KAYAK FITNESS

Kayakers need to keep themselves physically fit. This develops their endurance, speed, flexibility, and strength and helps them avoid injuries.

The essential fitness any kayaker should work on is stretching, warming up, and cooling down. If you try to do this, your kayaking will be more fun.

Static stretching involves moving to the outer mobility limit for some muscle groups and applying pressure continuously to extend the mobility range.

Static stretching is best done after your workout for cooling down when you need to relax and develop flexibility for your exhausted and thoroughly warmed-up muscles.

Dynamic stretching is a way of waking up muscles and getting them ready to work hard. This is moving your muscles around through the full range of motion you will use during the training.

Dynamic stretching, therefore, improves the speed of movement, momentum, and muscles. This stretching can be done just before a competition as it reduces the tightness of the muscles. This stretching is a pre-workout stretch that improves blood flow to the muscles and lubricates the joints.

Shoulders/Torso 1

Your elbow has to be under your chin, and the other hand should push the elbow towards the opposite shoulder.

You can stretch more intensely you must rotate your shoulders in the same direction you are pushing.

You must apply continuous pressure for at least forty seconds and hold the stretch before repeating with the opposite elbow.

Shoulders/Torso 2

This stretch has to be done by lifting your arm up and putting your wrist behind your head. The wrist has to be pulled towards the opposite shoulder.

You can intensify the stretch by bending your torso to the side in the same direction you are pulling.

Again you must hold the stretch with continuous pressure for at least forty seconds and repeat with the opposite arm.

Torso stretch with paddle leverage 1

Stretch completely for torso rotation until you can see your boat's stern or back end.

Apply continuous pressure by holding on for forty seconds and repeat for the opposite side.

Torso stretch with paddle leverage 2

Stretch the bottom hand by reaching across the bow (front) of your kayak and placing the power face of the paddle against the bow.

Next, push out the top hand using the vertical paddle for sufficient leverage. This will allow you to swivel your torso toward your kayak's stern (back).

Apply continuous pressure and hold for forty seconds before repeating on the other side.

Stretching has to be done whenever you feel stiff. It can be before, during, or after kayaking. It is a good idea to stretch first thing in the morning on the days you are going on kayaking trips.

Essential stretches for kayakers include the arm/shoulder and torso areas as the arm/shoulders move our muscles and the torso, which powers our boat when we paddle, following the correct technique. Hamstring stretching is also critical before you go kayaking.

The stretching regime goes like this.

Shoulder one – putting your elbow under the chin and using the other hand to push the elbow towards the opposite shoulder and rotate in the same direction you are going. Repeat for the opposite shoulder.

Shoulder two – put your wrist behind your head by lifting your arm. To intensify the stretch, bend the torso towards your pulling direction. Repeat for the opposite wrist.

Torso rotation – sit with one leg stretched in front. Bend another leg by crossing over the straight leg putting the foot down under the knee. Using elbow pushes on bent knee, rotate away from the straight leg. Repeat for the opposite side.

Hamstrings/lower back. Sit down and keep both legs straight out in the front region. Grab hold of your feet and pull your nose near your toes. To strengthen the stretch, do each leg one by one.

Consciously stretching your muscles before leisurely kayaking or competitions will ensure better performance. This will also provide you do not go in for any muscle injuries.

This is a small effort on your part but goes a long way in providing you with uninterrupted enjoyment of this sport.

SAFETY AND PRECAUTIONS FOR KAYAKING

For beginners, kayaking will be the most thrilling experience of their lives. However, adventurous kayaking may also be a hazardous sport. A person needs to be extremely fit, both mentally as well as physically, to participate in kayaking activities.

Moreover, the conditions, as well as the water bodies where kayaking activities take place, can be highly unpredictable as well as turbulent. Taking certain precautions and safety measures is essential to enjoy this sport fully.

General Safety tips regarding Kayaking have been designed keeping in mind the conditions of the water, kayaking equipment, Kayaking gear, as well as the kayakers' common sense.

Common Sense:

Your instinct and awareness can be a big help for you if you end up in some life-threatening situation while kayaking. Before you embark on a Kayaking expedition, specific questions should be considered before you head out. Questions such as;

- Am I genuinely built for kayaking?
- What kind of climatic conditions will I come upon while Kayaking?
- Will I be able to handle such extreme conditions?
- Am I carrying the right kayaking gear and safety equipment to support me in harsh conditions?

Hypothermia or Cold Water Immersion:

Exposure to cold water for prolonged periods while kayaking can lead to severe damage to your body. You have to realize the following facts before you try your hand at Kayaking;

- Your body has a 25 % more chance of losing heat in water than in normal conditions.
- If you are Kayaking in cold weather conditions, you must realize that the water temperatures are always much more relaxed than the surrounding air temperature.
- Sea Kayakers are always at a risk of Hypothermia
- Sometimes Hypothermia can also be caused by rain or sweat.

Proper Clothing:

You must wear proper waterproof gear and assigned clothing while kayaking. The climatic conditions are highly unpredictable and bound to change rapidly and suddenly. Your clothes must protect you from cold weather and be comfortable enough to allow free movement.

Proper Equipment:

Try to get familiar with all your Kayaking gear as well as equipment. Learn how to use them correctly and discuss their limitations with your instructor. Rudders or skegs are critical kayaking equipment where high tides, high winds, and rapid currents are to be dealt with. Make sure you select the proper weight of this equipment so that you don't carry too much load on your kayaking trip.

Recommended Safety Procedures:

- Dress your body keeping in mind that you might end up immersed in cold water. Also, remember that you will spend a lot of time being wet.
- Before you plunge into the activity, always get an idea of the air and water temperatures from your Kayaking instructor or guide.

- Try to get a complete idea about what to expect if you or your companions catch Hypothermia.
- You have to remember that Hypothermia occurs in different stages gradually, so it must be treated according to the symptoms at that particular moment.
- You must wear waterproof gear, yet it must be comfortable and breathable. Never remove your clothing while you are in the water!
- Always dress in layers and bring a waterproof bag filled with dry clothes and first aid kits.
- Always keep signaling devices such as whistles, flare guns, and high-power torches with you if you need to signal for help. Also, try to carry an extra blanket with you at all times.
- You must always be self-sufficient when you are on a kayaking trip.
- Be prepared to experience sudden temperatures and climatic changes that can occur during your kayaking expedition.
- Most importantly, listen carefully and follow all the instructions given to you on your Kayaking trip. Ignorance will not be bliss during such kayaking trips.

SYNOPSIS

Kayaking is a hobby and sport that has recently seen a significant surge in popularity. Kayakers love this sport as it gives them complete access to all the unexplored parts of a river that cannot be reached by bulky water crafts. Kayaking also offers relaxation and solitude to people who are looking for peace.

What are you waiting for if you still need to become a kayaker? Get your kayak and move ahead to start the most beautiful and enjoyable hobby of your lifetime!!!