

PADDLE CANADA
Style Canoeing Program Manual

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AND REVIEWED BY THE CANOE PROGRAM DEVELOPMENT
COMMITTEE

Finesse and Grace outweigh Strength and Speed.



**PADDLE
CANADA**
**PAGAIE
CANADA**

TEACHING SKILLS ASSOCIATED WITH STYLE CANOEING
AND CANOE DANCE

Thoughts on the Program

I (Charles) have to admit having a hard time developing/thinking about this discipline for teaching since, for me, style paddling is an individual pursuit; a meditative and experiential activity. Criteria are difficult to judge/teach except on an individual or personal basis – there is a lot of latitude in the possible content and requirements. I am content if someone has a chance to feel and appreciate the motion of the canoe.

Charles Burchill

from a fellow canoeist

“... I was trying really hard to do my skills correctly which made for very ridged and choppy movements, not relaxed in any way. As I remember it, you showed me how to do weight turns but not to end up any particular spot, instead just to feel the movement... That was the moment for me. From there I found the perfect pivot (I love spinning circles) and you matched my circles with your canoe so the bows just missed each other in perfect timing. It was beautiful and most importantly, I finally felt connected, a feeling of confidence to be built upon. I believe that is the core of this course.” -

Sharon Touchette.



“There is a vitality, a life force, a quickening that is translated through you into action, and there is only one of you in all time, this expression is unique, and if you block it, it will never exist through any other medium; and be lost. The world will not have it. It is not your business to determine how good it is, not how it compares with other expression. It is your business to keep it yours clearly and directly, to keep the channel open. You do not even have to believe in yourself or your work. You have to keep open and aware directly to the urges that motivate you. Keep the channel open. No artist is pleased. There is no satisfaction whatever at any time. There is only a queer, divine dissatisfaction, a blessed unrest that keeps us marching and makes us more alive than the others.” -

Martha Graham

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The author/publisher of this book accepts no responsibility for injury, or loss of life while using the information in this publication. The material presented is for use as reference only; it is the sole responsibility of the canoeist to determine whether or not he/she is qualified to safely navigate any water situations, trails and road conditions, and to accurately assess present conditions in relation to published material. Before choosing to navigate any passage you must evaluate for yourself: water volume, water and air temperature, skills, fatigue, value/waterproofness of load, isolation, feasibility of rescue and risk to your equipment.

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Thank you, most of all, to all of the paddlers out there – without you, what’s the point.

Instructor Note:

This manual outlines the skills and criteria for each level in the Style Solo paddling program. It may be used by instructors to create personal courses and programs, or by participants to understand the skills and criteria required at each level. With the exception of the section on how to become an instructor this manual should not be considered an instructor trainer manual.

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Comments, Corrections, Suggestions:

Please send any comments, corrections, or suggestions to the Paddle Canada Canoe Program Development Committee (PDC) chair (canoepdc@paddlingcanada.com). Your thoughts and ideas will be forwarded to Charles and Jeremiah.

Style Canoeing Program

“There is nothing that is so aesthetically pleasing and yet so functional and versatile as the canoe.” – Bill Mason

The Style Canoeing program follows in the footsteps of Omer Stringer, Bill Mason, Becky Mason, and others paddling in a classic Canadian form also called “Omering”, Canadian Style, or Classic Solo Canoeing. This is a quiet water solo paddling style where the canoe is moved across the water in free flowing graceful motions and routines. Typically a traditional tandem canoe is used, paddled on one side, with only occasional cross strokes. The canoe is heeled to the paddling side with the gunwale near the water surface; the canoeist is quiet [sitting still almost invisible] with the focus on the movement of the canoe. Canoe Dance or Ballet is subset of Style canoeing usually with longer routines done to music. American Freestyle (AFS) is a closely related discipline that typically uses smaller canoes, many dramatic static strokes, and more body movement. At the Advanced level an introduction to the basics of this more recent Style technique is included as part of this program.

Paddlers will gain an intimate feel of the connection between body, water, and canoe. By the end of the program they will be able to take the canoe through a series of precisely controlled quiet water routines as a single paddler or as part of a group. Participants will finish each course with a good understanding of the effect of hull shape, edging, body position, and strokes. Advancement from one level to the next will mean extending basic manoeuvres into routines with tighter corridors along with mastering new skills and new manoeuvres.

The Style program is divided into three broad steps:

- Introduction. Basic introduction to the concepts and forward control, weight turns, pivots, basic reverse skills
- Intermediate. Controlled weight turns, intro to variety of reverse manoeuvres, and simple routines.
- Advanced. Controlled reverse skills, advanced routines, weight shift and static strokes (Intro to American Freestyle).

Although Style canoeing is typically done in a small protected area with little wind or current, the ability to precisely control a canoe has direct application in more general Lake and Moving water situations. Many moving water canoeists practice style paddling techniques to hone their skills and apply them in swift water conditions.

“Canoes don't tip, people just fall out of them” – Omer Stringer

Program Goal

Participants will learn precise paddling skills that display graceful and fluid motions of the canoe during manoeuvres and routines showing a high level of precision boat control in a quiet water environment.

Ratios for Style Canoeing Program

Introduction to Advanced levels are taught with a maximum ratio of one instructor to six students (1:6)

Course Length

Minimum time required to complete each course

- Introduction: 8 hours
 - o 16 hours will be required if the participant does not have the required Lake Solo Skills
- Intermediate: 8 hours
- Advanced: 8 hours

Participants should expect to practice at least two additional hours for every hour of instruction time. Instructors may want to include this time as part of the course (e.g. Intermediate Style Canoeing would become a three day course). Courses may be run over multiple days, or weeks, allowing time to practice manoeuvres, and/or develop and choreograph routines.

Although the style program can be entered directly with Intro Solo canoe skills the actual paddling skills, even at the intro style level, are quite difficult and a high level of precision is required. Paddle Canada recommends the people interested in the style paddling program have completed at least Intermediate Lake Solo and instructor candidates should consider mastering Advanced Lake Solo.

Location

Since Style canoeing focuses primarily on canoe control on quiet water only a small area is required. A pool, sheltered pond, or small lake with 50m open water is usually adequate – larger groups may require more space. The water should be deep (1.5m or more) and free of obstructions or weeds allowing the deep paddle placement required of many of the strokes used in Style canoeing.

Criteria (Corridors) for Core Skills

At each level general criteria are identified in parenthesis after each core skill in the order: corridor, length, and yaw. Corridors and length are measured from the canoeist. The corridor is the total variation around the line of travel allowed (e.g. 2m would be 1m each side of the center line). Length is from start to finish in one direction. Yaw is measured as the degrees rotation from the expected alignment of the canoe along the line of travel (e.g. 20° permitted yaw might be 10° on each side of the normal course of travel). Although there is no specific measured criterion for roll it should be minimal and appropriate to the style skill being demonstrated. Even though corridors have been suggested paddling with finesse and control through a routine is more important than meeting very rigorous single manoeuvre criteria.

Warm-up

Style canoeing requires good flexibility and often uses paddling positions/movements

that may stress muscles and joints. A proper warm-up and cool-down is critical before and after any Style paddling to prevent injury.

Balance

A strong sense of balance is a required skill in all style paddling as the canoe is often edged or tipped to the point that the gunwale touches the water, body placement may even be shifted outside of the canoe and supported by a strong brace. Participants should be encouraged to participate in other activities that improve core strength and balance (e.g. Yoga, trail riding, Tai Chi, kneeling or standing on a Pilates ball, standing on one foot [with eyes closed], ballet or other dance, skiing (cross country, downhill, telemark), sit-ups/crunches/fishies, etc... and actually canoeing ☺).

Boat and Paddle

Style canoeing takes its history and development from paddling traditional tandem lake and tripping canoes; the program reflects this heritage. The traditional canoe used for Canadian Style paddling is a symmetrical tandem boat with some rocker, soft chines, central thwart or yoke, and shallow arch bottom. This style of paddling generally uses a paddle with a shorter shaft, compared to paddling tandem, and a long blade (otter tail or quill). The grip should be symmetrical and the shaft straight as rolling strokes and power face changes are common. Although the style of paddling (heeled and paddling on one side) typically uses a larger tandem canoe there is no reason that the same skills cannot be used in smaller solo boats.

American Freestyle usually uses smaller solo canoes often with no centre thwart; there may be a solo seat or kneeling thwart. Cross strokes and weight shifts are easier to complete in these smaller narrow boats. The paddle used has a longer shaft and large broad blade. The larger blade allows stronger braces and more significant power transmission during the static portion of strokes. When considering boats for AFS paddling keep in mind that the weight of the paddler can make a considerable difference to the way a canoe will react; paddler and boat size should be matched. Look for a boat with some rocker, narrow entry lines, and fairly full or rounded along the length of the canoe, but still narrow enough to comfortably execute cross strokes.

The program developers and instructors recognize that there is a continuous variation between boat shapes and the program may be appropriately modified to account for different boats and how they move through the water. Students should recognize that a skill learned in one kind of boat may not work in another boat; in some cases the same body position and heel may produce an apparently opposite effect. It is the responsibility of the instructor to adjust teaching methods and suggestions accordingly, and to explain the differences.

Core skills, Manoeuvres, Routines

A core skill is a simple motion (e.g. straight line or pivot) that continues over a defined distance or period of time. Core skills are the very basic foundation of all Style canoeing, in this program there is a suggested criterion for each skill. There are two levels of core skills identified in this program: simple motions such as straight lines and pivots; and

more complex or compound skills that involve two or more basic movements such as turns which include both a line and arc or pivot.

Manoeuvres are a core skills (e.g. pivot) executed along a defined pattern (line pivots) that are completed in open water without markers or criteria – manoeuvres allow students to show individual expression and style. Although no criteria are specified each open water manoeuvre must be executed smoothly with minimal unintentional rocking and splashing. Starting at the intermediate level open water manoeuvres must be completed on both paddling sides. Students should be encouraged to attempt manoeuvres that expand beyond the set listed in this manual – be imaginative, try new skills.

Routines are a series of smoothly interconnected manoeuvres on open water that allow the canoeist to display control over the canoe and personal style and interpretation. The transition between one manoeuvre and the next is just as important as the manoeuvre itself – transitions should be intentional and controlled. Each level has an increased requirement to put together routines as an individual (single canoe) or as part of a group. There is no requirement to set routines to music but the addition of music may assist in the interpretation, timing, and artistry of the display. At advanced levels expect to spend several hours developing, choreographing, and executing even short routines.

Assessment

At each level assessment is based on the completion of core skills within the identified criteria as set by the instructor, open water manoeuvres, and routines. Although paddling strokes are taught within each level assessment is primarily based on the movement and control of the canoe in routines rather than execution of specific strokes. At the intermediate level and above transitions between manoeuvres must be executed in a manner appropriate to the routine – controlled, well timed, and continuous (as appropriate).

The end point of style paddling is open water manoeuvres and routines. Assessment of core skills with buoys and/or a dock should only be used to show the level of boat control needed during more open water displays and must not be the focus or end point of the skills in this program. Instructors and candidates may choose not to use markers at all for this reason.

Prerequisites

Individuals entering the Introductory Style canoeing course should have at least the Paddle Canada Introduction to Lake Solo or be paddling at an equivalent level at the discretion of the instructor (e.g. old Paddle Canada Flatwater D certification, ORCKA Basic Level 4 solo, ORCKA Style Paddling Level 2 (solo), ACA Freestyle level 1). Entry into the course without the prerequisite skills will mean at least an extra day of instruction. There is some degree of overlap between the skills required in other Paddle Canada paddling programs but the focus on control and routines make this stream different and challenging.

Note Regarding Paddle Canada Lake Solo

The Paddle Canada Lake Solo program and Style Program have some overlapping paddling skills especially at the Advanced Lake Solo level. The Lake Solo program is a very practical course that includes not only paddling skills, including paddling in adverse conditions (wind/waves), but also requirements in the practical end of planning day trips, understanding weather, navigation, ropes/knots, a range of emergency situations, group management, open water considerations, etc.... The style program focuses almost solely on paddling skills and routine development, going beyond just the practical skill to a higher level of finesse and artistry. The need for exact skills becomes apparent when paddling routines where the motion of every canoe must be completely and appropriately synchronized or complementary. The style program also requires significantly stronger reverse and non-dominant side paddling skills.

Paddle Canada

At each level there will be a discussion of how this program fits into the overall Paddle Canada paddling program, expectations for the particular course, choosing an appropriate environment, course limitations, and resources for expanding skills and knowledge particular to the current course. The Style Paddling program may be considered an off-shoot or branch of the Lake paddling program that is dedicated to boat control in a quiet water setting.

Paddle Canada's Mission Statement:

To promote all forms of recreational paddling emphasizing safety & instruction, to Canadians of diverse abilities, culture and ages and to thus deepen our collective appreciation of our land and paddling heritage.

Paddle Canada values the following as part of its activities:

Safety

We promote and teach the safe use of canoes, kayaks and SUP.

Educational Programs

We train our instructors to certify people in the knowledge & skills of safe and enjoyable canoeing, kayaking and stand up paddle boarding.

Environmental Awareness

We help develop a love and respect for our natural resources.

Heritage

We nurture understanding of the place of the canoe and the kayak in our Canadian heritage.

The Four Priorities of Paddle Canada are:

1. Public Awareness & Membership
2. Youth
3. Partnerships
4. Instructor Development

The 10 Objectives of the Association are as follows:

1. Increase opportunities to belong to and that support Paddle Canada;
2. Create and implement a communication plan with measurable results to connect the national paddling community;
3. Increase the number of youth participating in Paddle Canada programs;

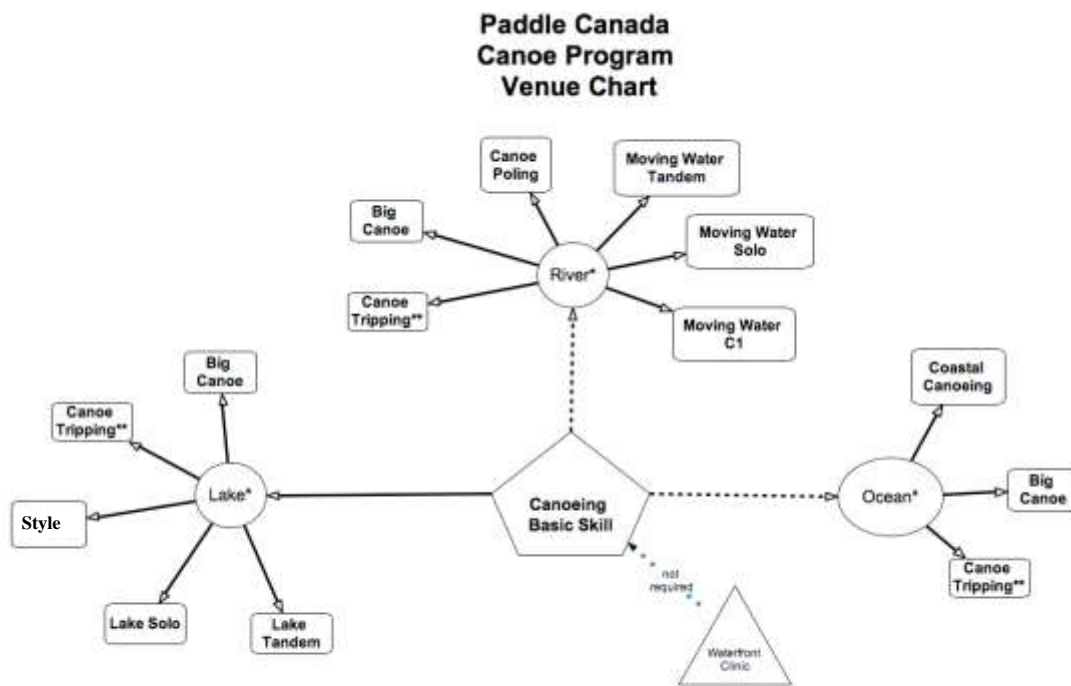
4. Increase the number of existing organized youth paddling programs that utilize Paddle Canada programs;
5. Harness the full potential of existing partnership relationships;
6. Identify and foster new relationships aligning with the Vision;
7. Evaluate costs / benefits of partnerships annually;
8. Increase instructor development opportunities at all levels;
9. Identify opportunities for enhanced accessibility of the Paddle Canada programs;
10. To provide a forum for the Provincial and Territorial Associations

Paddle Canada Programs

- Canoeing
 - Waterfront program
 - Canoeing Basics
 - Lake Canoe
 - Moving Water
 - Canoe Tripping
 - Canoe Poling
 - Coastal Canoeing
 - Big Canoe Program
 - Style Canoeing
- Sea Kayaking
- River Kayaking
- Stand Up Paddleboard

More information on the Paddle Canada programs can be found on the website:

<http://www.paddlecanada.com/>



Notes *There are three venue titles (lake, river, & ocean); they are not courses.
 **The canoe tripping course is the same course, regardless of its location in different venues.

Core Level Requirements

This section provides a brief goal for each level along with minimum core skills, manoeuvres, and routine requirements that must be completed. An explanation of specific skills, theory, and background material can be found in the resource section of this manual or the more general Paddle Canada resource manuals.

“Technique is what you fall back on when you run out of inspiration” - Rudolf Nureyev

Style Canoeing Introduction - Solo

The Introductory course provides the foundation for Style canoeing. Basic core skills will be covered and the ability to paddle in precisely controlled manoeuvres will be developed. At this level candidates must be able to complete the core skills and open water manoeuvres on one paddling side; they should also be encouraged to attempt the skills on both sides. Students will develop a good understanding of the MITH concept in relation to boat control in the forward direction, and an introduction to reverse.

Core Skills (corridor/length/yaw)

- Canoe lift and carry
- Launch and removal from water at shore/dock
- Balance – esp with respect to heel
- Controlled sit (0,0,0)
- Inside pivot (three complete revolutions) (2m, N/A, N/A)
- Outside pivot (three complete revolutions) (2m, N/A, N/A)
- Forward straight line (<2m, 25m, 20°)
- Reverse straight line (<2m, 25m, 20°)
- Controlled stops (forward & reverse) (<2m, 3m, 20°)
- Side displacement with 90° outside corner (both directions) (<1m, 10m, 20°),
- Forward inside Circles (two) (<2m, 5m radius, 20°)
- Forward outside Circles (two) (<2m, 5m radius, 20°)
- Forward controlled turns in both directions (<2m, 5m, 90°) (5m is from initiation to completion ~1 boat length) – Stop turns, pivot turns, and U turns are all included
- Forward weight Turns in both directions, heeled to paddling side (no criteria, but consistent selection of direction of turn)
- Reverse weight turns (no criteria, introduction to skill only)

Safety and Rescue

- Swim 15m towing swamped canoe and empty in shallow water
- Canoe over Canoe or parallel rescue, & supported re-entry from deep water
- Self-rescue techniques (swimming with canoe, shallow water recovery/empty).
Use of techniques such as splash out or Capistrano flip may be covered.
- Attempted Solo re-entry into the canoe from deep water

Although these items are not critical for Style canoeing they are often needed when learning or practicing as accidental tipping is not uncommon.

Instructors will ensure that the participants are aware of all of the necessary skills and appropriate treatment of equipment at each level. Skills listed in this section are for completeness if participants have shown that they have the necessary skills then further instruction may not be required (e.g. lifts/carries, launch, canoe-over-canoe).

Paddling Strokes – Blending of strokes and palm rolls will be introduced at this level along with a discussion of placement, catch, follow-through, completion, recovery, and associated forces and torque. Although the program is primarily focused on movement of the canoe a set of strokes is helpful to know and understand for communication.

- J, Canadian, or knifing J
- Rolling J (silent stroke)
- Reverse J
- C stroke
- Draw, Push away/pry – both off-set and for side displacement
- Sculling in both directions (side displacement)
- Forward stroke
- Box stroke along with variations (pivots)
- Reverse stroke and compound back stroke
- Running pry, jam (turns)
- Running draw (turns)
- Sweep (forward/reverse) for both turns and pivots
- Braces – in particular low and high braces, along with sculling braces.

Manoeuvres

- Each of the core skills will be completed in open water. Synchronized paddling of core skills (e.g. side-by-side paddling, interlocking pivots, circles around pivot, etc...) may be introduced at this level. Although there are no set criteria for open water manoeuvres they should be executed smoothly without significant roll or splash – this is the artistry of Style canoeing. Students should be encouraged to try and develop their own ideas.
- Stop/check – the paddler should be able to stop each manoeuvre, either completely or direction (such as in a turn).
- Instructors may include a basic marked course for students to follow to mimic using specific style skills when paddling in tight paddling conditions.
- Introduction of Synchronized paddling.

Routines

- There is no requirement for complex routines at this level but attempting basic synchronized paddling of basic skills is encouraged.

Theory

- What is ‘Style’ Canoeing – off-shoots, related disciplines, and subsets.
- Boat types/shapes as they apply to style paddling
- Hull shape and implications for paddling from different positions (heel, trim).
- Heeling the canoe – reference to chine, how much is appropriate, changes, how to ‘apply’.

- Influence of Omer Stringer & others (Bill Mason, Becky Mason, etc...) on Style canoeing
- Equipment required
 - Small Vessel Regulations – PFD, bailer, whistle, paddle, throw line, light.
 - Kneeling pads (size/shape)
- Alternatives to kneeling – saddlebags, thwarts, seats, pedestals – strength and limitations.
- Canoe Dynamics/Mechanics
 - With each manoeuvre consider: Initiation, paddle placement & pitch, trim/pitch, conclusion, recovery, along with the influence of weighting
 - Importance of body placement including both trim and heel
 - Kneeling positions – low (Canadian), high, transverse, & three point. At this level most paddling will be done from a low kneeling (Canadian) position.
 - How to stay comfortable when paddling through the use of kneeling pads, saddle bags, movement, weight shift, etc...
 - Importance of paddle placement relative to pivot point – a discussion of torque (PATT)
 - Introduction of paddle pitch during both static and dynamic strokes
 - Introduce movement in the canoe during manoeuvres/routines and how this can affect the presented or apparent hull shape
 - Discussion of edging (heel) the canoe to optimize turns and other manoeuvres – the concepts around MITH.
 - Discussion of trim/pitch and how these can affect turns and boat control. Include carved turns and skidding turns.
 - Discussion of the Correction/Detection and Training Pyramid.

Style Canoeing Intermediate - Solo

The intermediate level expands on the Style canoeing skills introduced at the earlier level by adding controlled weight turns and reverse manoeuvres. Open water extensions of core skills are introduced along with the development of basic routines. Starting at this level core skills must be attempted on both paddling sides but only the most proficient side will be assessed. Open water manoeuvres must be demonstrated on both paddling sides starting at this level, again only the proficient side will be assessed. Basic routines must contain several manoeuvres showing smooth transitions and fluid motion of the canoe and paddler. Basic synchronized paddling skills during manoeuvres and routines will be covered. A strong understanding of MITH concept is required in both forward and reverse directions.

Core Skills

- All of the introductory core skills but with tighter corridors (e.g. half of each corridor and yaw as appropriate)
- Reverse inside circles (two) (<2m, 5m radial, 20°)
- Reverse outside circles (two) (<2m, 5m radial, 20°)
- Reverse turns in both directions (<2m, 5m, 90°) – including pivot turn, stop turns, and U turns
- Controlled forward weight turns in both directions (<3m, 5m, 90°) without over rotation or ‘wash out’ – some continued side or forward motion after the turn is acceptable, demonstrate ability to initiating the turn, stop the turning motion, and initiating again in same direction.
- Weight shift (required for off side strokes & controlled weight turns)
- Forward running side slip (both directions) (2m to side, over 4m forward, 20°)
- Forward connected circles (two circuits) (<2m, 5m radial, 20°)
- Reverse weight turns (some control, consistent selection of direction)
- Side displacement with inside and outside corner (both directions) (<1m, 10m, 20°), onside/offside heel

Paddling Strokes

- Off side strokes (off side forward, draw, pry – both dynamic and static). These should be done with both onside and off-side heel. Consideration should be made of the canoe width and limitations of the size and reach of the canoeist.
- Reverse Rolling J
- Circle stroke (both high and low for extended pivots)
- Surface sweep (for turn – e.g. Christie). The sweep may be done one handed.
- One handed jam, and associated follow-up pry.
- Compound forward stroke
- Running draw & Running Pry used for side slip
- Combined or blended strokes. In particular keeping some force on the paddle through-out blended strokes (e.g. using a palm roll)
- A good understanding of all phases of a paddling stroke is required, including recovery.

Manoeuvres

- Core skills in open water

The following manoeuvres are examples and may be expanded on by the instructor.

- 'flip' – line with 180° pivot turn & continue same direction
- Line pivots
- Pinwheel (centre pivot)
- 45° line (diagonal line)
- Spiral to pivot
- Personal development and exploration. Explore and develop own ideas for personal style within the difficulty for the level
- Other canoes may be used as markers or part of the routine – such as synchronized paddling.

Routine

- Simple solo or duet routine (4-6 manoeuvres) – synchronized paddling or complex solo routine of 6+ manoeuvres
- Routines at this level and above may be done to music and choreographed (although this aspect of the routine will not be part of the assessment)
- Routines should be considered as a whole with smooth or 'intended' transitions throughout.
- Experiment with ad-lib or improvised routines.
- Basic synchronized paddling.

Theory

- Paddle shapes/styles
- More advanced hull shape discussion and impact of heel, trim on carving & skidding turns.
- Leading and trailing ends
- Importance and effect of body position, paddling style/manoeuvres
- Importance of communication when doing synchronized paddling
- Development of routines (choreography)
- Transitions between manoeuvres – most efficient and effective.
- Expanded body position (includes face/body rotation, high kneel, off side heel etc...)
- Use of Style skills in other paddling disciplines
- What is next – demonstrations, symposium, competition
- Synchronized paddling – same power, rhythm, matching or complementary

Style Canoeing Advanced - Solo

Participants that complete this course will display a high degree of precise boat control and be able to present complex and personalized paddling routines. New core skills are added, including an introduction to American Freestyle. Although core skills must be completed on both paddling sides only the most proficient side will be assessed. Open water manoeuvres must be completed on both paddling sides. Cross strokes, switching sides, facing direction, and weight shifting are all acceptable during routines as long as the transition is, controlled and intentional. Participants in this course should be encouraged to develop and innovate additional manoeuvres of their own; routines and manoeuvres should be a reflection of the paddler not the instructor. A good understanding and ability to paddle in a synchronized form during routines will be developed. An understanding of transitions and controlling all aspects of the movement of a canoe through MITH concepts becomes critical at this level.

Core Skills

- All of the Introductory and Intermediate core skills but with tighter corridors (e.g. half of each corridor and yaw as appropriate)
- Reverse weight turns in both directions (controlled) (<3m, 5m, 90°)
- Reverse running side slip (2m to side, over 4m forward, 20°)
- Reverse connected circles (two circuits) (<2m, 5m radial, 20°)
- Complete English Gate or equivalent course
- Further blended strokes and transitions.

Paddling Strokes

- Stroke blending as needed to complete manoeuvres and routines (e.g. diagonal offside forward movement initiated with wedge or jam near pivot point slide forward as momentum declines, shift to push-way and pitched forward stroke, slice return to jam, repeat...)
- Regular use of palm rolls and increased use of appropriate initiation and follow-through particularly with static strokes
- Increased use of static strokes throughout manoeuvres and routines.
- Use of one handed strokes such as running draw/pry and surface sweeps
- Clean follow-through and recovery

Manoeuvres

- All core skills in open water, both paddling sides

The following manoeuvres are examples and may be expanded on by the instructor.

- Displaced circles
- Pivot through arcs and/or circles (similar to line pivot but following an arc)
- Stern pinwheel
- Introduction to American Free Style. The basic skills have already been covered but names and weight placement change. Each of the moves is executed in both directions (forward/reverse) and in each quarter of the canoe as appropriate. Starting with forward and reverse onside quarter, exploration offside quarters, where appropriate, should be encouraged

- Axle
- Christie
- Wedge
- Post
- Freespin
- Gimbal
- Personal development and exploration expanding on these examples within the difficulty for the level.

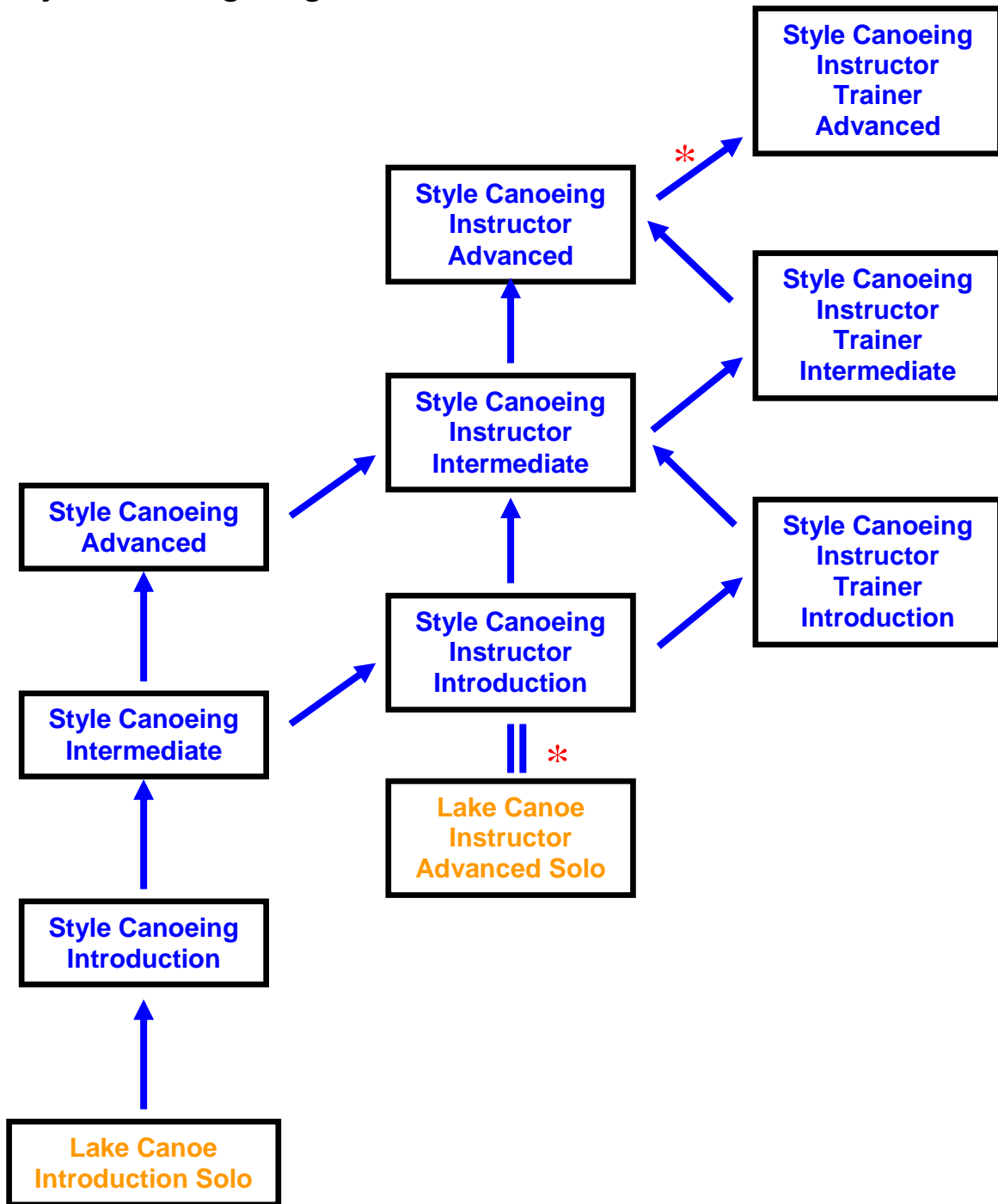
Routines

- More complex duets with six or more manoeuvres, or highly complex solo routines (8+ manoeuvres) involving at least 4 manoeuvres from the advanced core skills.
- Parallel paddling routines must be within 1m with constant distance and speed.
- Paired pivots or inline manoeuvres must be within 0.5m at the closest point.
- Participate in an improvised Style canoeing demonstration.
- Routines should be considered as a whole movement with smooth or ‘intended’ transitions throughout.
- Including music and more complex choreography may be used in advanced routines. Timing and interpretation may be included in assessment of skills.
- Multiple paddlers must be appropriately synchronized – using complementary strokes, power, and rhythm.

Theory

- Influence of/on American Freestyle & where to find further training.
- Dynamic and Static strokes – purpose and distinction particularly with respect to Freestyle paddling.
- Importance of weight shifts and terminology in American Freestyle.
- Effect of leading/trailing stems and boat control
- Synchronized paddling – same power, rhythm, matching or complementary motions/strokes
- Style canoeing competitions, symposia, demonstrations
- Advanced choreography

Style Canoeing Progression Chart



* See Instructor and Instructor Trainer Certification information in Resource Section for more complete information on requirements. Transfer of Advanced Lake Instructor to Intro Style instructor may be allowed with appropriate documentation and skill demonstration.

Resource Material

“The higher up you go, the more mistakes you are allowed. Right at the top, if you make enough of them, it's considered to be your style.” - Fred Astaire

Core Skills & Manoeuvres

It is helpful to remember that there are only a few core skills and manoeuvres used in Style canoeing. These core skills are fundamental to all Style technique and should be mastered individually before attempting combined manoeuvres or routines. In each case a skill may be executed in a number of ways by changing body placement, weight [transition] in the canoe, and stroke placement. It is important to understand how weighting the canoe changes the apparent hull shape, moves the pivot point, and how paddle forces interact when executing manoeuvres.

People learning Style canoeing techniques are encouraged to try modifications and alternatives on the core skills and manoeuvres. When practicing skills spend some time trying skills in less than ideal conditions such as when there is some wind or current, or even use an unfamiliar paddle or canoe. This will force a modification of the approach, build confidence, and enhance skills.

Core skills may be measured against a specific corridor. Although markers make it easier for the instructor and student to assess skills it is not necessary. A manoeuvre is an open water execution of a core skill. There is no corridor in open water manoeuvres; think of it as the first step on the route to routine development - a single move routine if you like. Manoeuvres provide the first chance to show off mastered skills and display some personal style.

When first learning core skills and manoeuvres it is often helpful to have buoys, dock(s), or rope to mark the exact corridors and lines. Using markers is useful initially but becomes a crutch once the core skill is mastered. Students should be encouraged to practice using distant markers which, in turn, encourages better body position, posture, and improved paddling skills. Once the basic skill has been learned (mastered) students should practice without buoys or other obvious markers.

All of the core skills should be completed within the defined criteria with minimal rolling and splashing. When completing an open water manoeuvre or routine timing may be based on the choreographic requirements but when assessing individual core skills they should be completed with a constant speed.

The following are suggested maximum times to complete several core skills. These suggested times are slow and instructors should encourage students to complete the skills in less time.

- Straight lines – 30 seconds (3km/hr – over 25m)
- Side displacement – 1 minute (~0.6km/hr – over 10m)
- Circles – 1 minute (2km/hr – over 32m circumference)

- Pivots – 15 seconds/rotation

Starting at the intermediate level all open water manoeuvres must be completed or demonstrated on both paddling sides (recall open water manoeuvres are not assessed with specific corridor or yaw criteria). Assessment of the core skills may be done on the paddlers' strongest or most proficient side.

An excellent practice technique for learning any manoeuvre, and even some routines, is to complete them blindfolded. Concentrating on other senses and getting a feel for the boat movement will improve the skill. Although this can be done with a guide calling directions practicing without any external direction provides the most benefit. Blindfolded canoeing may be attempted with multiple canoes at higher levels but a guide should be used.

Because style canoeing is often done with the canoe moving both forward and backward, and the paddler may be facing either the bow or the stern, it is helpful to use a couple of additional terms. When talking about the movement of the canoe use *Leading End* for forward direction of travel and *Trailing End* for the backend. When weighting the canoe use *Forward Weighting* (in the direction of travel or leading end) and *Rear Weighting* (trailing end).

MITH Concepts

A good understanding of the MITH (Momentum, Initiation, Tilt, Hold) concept is critical for completing almost all of the manoeuvres and routines in style paddling. This concept is not unique to style paddling, and as such it is important in other venues such as moving water, but it requires a high degree of understanding of the forces on the canoe so turns can be accurately controlled.

- *Momentum* is the combination of the mass of an object (canoe and paddler) and the speed that it is moving. To complete any move you will require some momentum; it is important to realize that this does not necessarily equate to speed. You will require enough forward (or reverse) momentum to carry the canoe, and yourself, through to the end of the movement. Typically momentum carries an object in a single direction; a change in direction is caused by force acting on the canoe (paddle, hull shape, wind, etc...).
- *Initiation* is the initial force on the canoe that causes it to change in direction – this can be any direction but is typically used for turning. Usually we think of the initiation force as being applied by the paddler using a paddle but a change in direction can be initiated by other factors such as the shape of the canoe, current or wind.
- *Tilt* this is the amount that a canoe is tilted around its long axis. Tilting the canoe will typically allow the canoe to turn, and continue to turn, through two factors: 1) reduced water line and 'locking' the pivot point, 2) following the shape of the stems and hull for carving a turn. The shape of the whole hull can have a considerable influence on how a canoe 'carves'. The amount of tilt can be

- adjusted throughout a manoeuvre for controlling acceleration and direction of a turn; even switching direction or stopping,
- *Holding* or controlling the tilt throughout a manoeuvre controls if the canoe will continue along a specific course. Typically a tilted or heeled canoe will continue to turn as long as the tilt is held – leveling the canoe will stop the canoe from turning or carving.

PATT

Four flatwater paddle elements have been proposed by Becky Mason and used to enhance solo skills; these build on the MITH concept. PATT was specifically developed for Canadian Style paddling as it is meant to be applied on a single paddling side. Each element of PATT can be used separately or in different combinations; they can be used as aids to enhance all Style skills and manoeuvres.

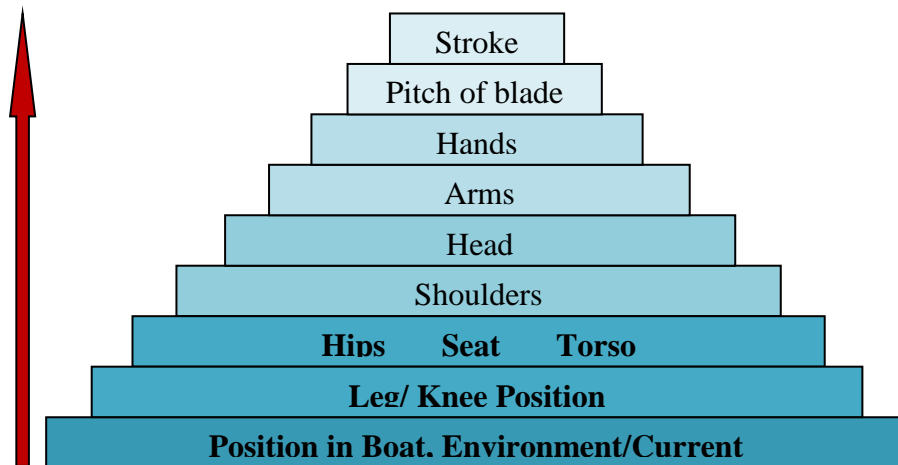
The Elements include:

- *Placement* – offset (forward/rearward) or through pivot point
 - Apply [short] strokes in FRONT of the pivot point the canoe will continue to arc.
 - Apply [short] strokes THROUGH the pivot point the canoe will continue straight.
- *Angle of the Shaft* - vertical or angled to the hull
 - Apply short strokes CLOSE to the hull and VERTICAL in the water; the canoe will go straight.
 - Apply short strokes ANGLED from the hull and the canoe will move through an arc or pivot
- *Tilt* - heel the canoe to the paddling side by kneeling in the chine or weighting one side
 - HEEL the canoe by kneeling in the chine so the gunwale is held at the water's edge as the move is initiated. The stroke can be positioned closer to the centre line of the canoe decreasing the turn effect of the forward stroke.
 - The amount of heel can be used to control the rate of turn.
- *Timing* – initiate an arc then pause
 - Initiate an arc while power is applied then PAUSE and the canoe will continue to carve. A turn can be enhanced with additional heel or use of the paddle.

PATT is modified from Andrew Westwood 2 x 4 moving water term. The 2x4 uses both on-side and off-side paddling. The 2 x 4 method described in the Moving Water Paddle Canada manual can also be applied to flatwater in small narrow canoe. The PATT method only uses on-side paddling because when paddling a tandem canoe solo the hull's larger width and longer length limit the ease of off-side paddling.

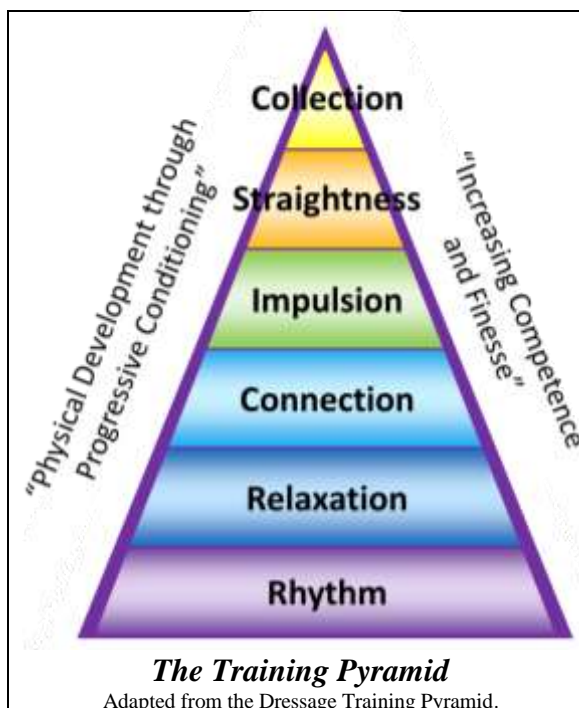
Correction and Detection Pyramid

Use the following pyramid to assist in detection and correction when developing skills. The pyramid is meant to identify focus areas when trying to detect and correct problems when paddling, the bottom elements are the base on which all skills are built. A weak base means a weak skill. Do not skip to the top before analyzing the entire pyramid. This is not to say that components higher in the pyramid are less important but when correcting problems consider the combination of the boat, paddler, environment, and stroke.



Training Pyramid

The Training Pyramid has been adapted for use in the style program because it provides a conceptual foundation for development of paddling finesse, boat control, and routines. The Training Pyramid should be used in conjunction with the Detection and Correction pyramid. When practicing style paddling manoeuvres or routines work through each of the stages in the pyramid. When starting with a new skill, manoeuvre, or routine work from the base of the pyramid then move up through each of the stages until completed. If you are having problems with more advanced skills or routines return to the basics. It is important to realize that the stages are interrelated; there is no expectation to perfect each stage before attempting the next, but each stage builds on the prior one. Use the pyramid as a reference for understanding the general progression and skill development from the beginning to the end – both over the whole style program and also within an individual routine or manoeuvre. When paddling



in groups apply the training pyramid concept separately for each individual and the group as a whole.

- **Rhythm** – The base of the pyramid includes an understanding of the tempo of paddling. Find your natural paddling rhythm – something that you are comfortable with. The timing and direction of a stroke or combination, when to initiate a skill or manoeuvre. Finally a clear idea of the manoeuvre/skill that is being developed. Balance and weighting are important concepts. Before starting on complex routines or manoeuvres just paddle; Rhythm is an important concept.
- **Relaxation** – The basic essence of this level is how the paddler ‘feels’ and looks in the canoe. It is both a physical and mental state. The paddler must be loose allowing the boat to move freely without hard motions or rocking. Shoulders, body, hips must not be tense or tight – think about relaxing our jaw muscles. This level also includes good paddling posture, location and weighting in the boat, a clear understanding of the center of gravity, and motion of the boat. A relaxed paddler will be able to execute smooth and flowing weight turns. Relaxation also implies a level of confidence and happiness.
- **Connection** – How the paddler is connected to and through the boat. This includes an understanding of the type of boat, hull shape, and paddle [blade shape] and how they interact or move through the water. How body shifts are used for control and initiation of moves. The actual physical connection between body and boat (e.g. kneeling style, mat, etc...). A good connection allows good transfer of power and torque from the paddler to the boat. A critical component of this stage is an understanding of the dynamics of the hull and how the canoe will move ‘naturally’ with different amounts of heel and pitch.
- **Impulsion** – Application of power through the paddle, the length of stroke, location/direction, and exact application of force through the pivot point (understanding torque). Movement of the canoe in any direction. The whole body must be involved in each stroke. Maximize efficiency and placement of power. Style is not about pure strength but finesse and control. The power used needs to be appropriate for the skill or manoeuvre.
- **Straightness** – Understanding where the boat is going, the corridor, and yaw is important in style paddling but there are other factors that need to be perfected first. When paddling there is often a small amount of yaw understanding how body position, transfer of power, torque, and paddle placement combine to move the canoe exactly where you want it to go is near the pinnacle of style paddling. Understanding how the subtle changes in the pivot point based on the movement of the canoe.
- **Collection** – This is the very pinnacle of style paddling. Blending of manoeuvres, anticipation of next move, lightness, exactness and control (finesse), synchronized paddling, demonstration skills.

Basic Core Skills

Controlled sit (Stationary)

Keeping the canoe still and in one place is an often overlooked core skill. It is an important part of the Style paddler's repertoire since it is critical to stop the canoe from moving before starting and after finishing every core skill, manoeuvre, and routine. This does not mean just sitting in the canoe but actively keeping the canoe still – it is harder than many people think. Keep the paddle in the water and moving/pitched as necessary to maintain a position.

Starting any motion from a controlled sit can be tricky; the initial paddling strokes should be short and subtle (not overly powerful). The concept of complementary and opposite forces should be considered when starting and stopping motions – anticipate the direction of the first motion and use an opposite force to balance that move.

Straight Line (forward/reverse)

A straight line moves the canoe in the direction of longitudinal line of the canoe – forward or reverse. This is a somewhat artificial construct since a straight line can be any movement of the pivot point along a defined straight corridor – the actual angle of the canoe can be in any direction to that line or even changing throughout the manoeuvre.

Straight lines are difficult to execute without a little side slip or yaw (crab-walk) – this is especially true with reverse lines. Set up two inline marker posts on the shore about 1m apart with the rear marker slightly taller. Align the two markers as you paddle forward (or backward). Instead of turning the canoe, which is the instinctual correction method, use a subtle side slip with a pitch blade to correct. When first learning the skill it might be helpful to run a taut cord above or beside the canoe. At higher levels lines should appear to be natural with the paddler following or using remote markers. One of the quickest corrections that you can make is ensuring that the paddle is perpendicular to the water surface through the power portion of the stroke with the grip outside of the gunwale. Watch the catch and follow-through. Shifting weight backward, toward the trailing stem, in the canoe and reducing the heel will often help maintain a straight line.

Stopping and starting are critical parts of straight lines and are usually the place that the most yaw, side slip, and roll happen.

Paddling strokes should be fairly short. When starting use gentle C stroke and then shift to using a J/Canadian/pitch/traditional. Most subtle corrections should be done toward the trailing end of the canoe.

Pivot

A pivot is rotating the canoe around a single point near the middle of the canoe, usually beside or under the paddler. Pivots can be in either direction: inside (moving the bow of canoe towards paddling side), or outside (moving bow of the canoe away from the paddling side). Holding strong heel to lock the pivot point and raise the ends of the canoe is critical to executing a smooth controlled pivot.

There are several methods that people have found helpful to measure or assess position when doing pivots. The best method is to place markers outside of the ends of the canoe. These might be several canoe lengths away or placed just at the end of the corridor (1-2m further apart than the length of the canoe). The canoeist focuses on the points and checks alignment and position as they go through each quarter rotation. At higher levels the canoeist should be able to hold a position or execute pivots without using distinct or obvious markers. Generally the use of markers causes the paddler to be ridged and focused on specific points; the use of distant or subtle markers is usually a better method of control in Style paddling.

The start and stop of pivots should be from a controlled sit (still) position. The suggested number of rotations at all of the levels is to complete three revolutions within the suggested corridor. Instructors should encourage students to complete both sets of pivots (inside and outside) in one sitting with a brief controlled sit between the direction change.

There are a number of paddling strokes and body positions that can be used to execute a smooth pivot. The 'usual' method is a traditional box stroke. Any sweep or draw/pry stroke that is completed by choking up on the paddle and as far as possible from the pivot point will work – including short sweeps at the front/back and directly out from the paddler. Circle strokes from a high kneeling position with the pivot point just outside of the gunwale or from a low position, with the arc of the blade passing under the canoe.

Side slip (side displacement)

The criterion for side displacement is to move the canoe along a straight line perpendicular to the longitudinal line of the canoe (sideways). Side displacement can also be done with the canoe at other angles to the direction of travel; there is a continuum between side displacement and straight lines.

The most common method for learning to do a smooth side slip is to follow a dock with the front of the canoe about ½ the corridor away from the bow. An alternative and possibly 'better' method would be to follow a line or shadow running perpendicular to the direction of the canoe through the pivot point. This alternative encourages better body position and is more conducive to open water paddling. Side displacement is tested over 10m with a 90° corner at all levels with tighter corridors at each level. The expectation is to complete both directions in one sitting with a controlled sit between each side movement.

Practice more advanced side displacement skills by following the sides of a dock keeping the canoe perpendicular to the dock edge – including all of the corners. Moving around corners provides the initial set of skills for doing pinwheels.

Sculling strokes are typically used for side slips. Angling the canoe is done by moving the sculling stroke forward or backward from the paddling position and adjusting the pitch to draw/pry in the direction of travel (not into the canoe). Levelling the canoe (less heel) or using a slight heel away from the direction of travel will be the most efficient and

easiest to control. It is difficult to heel the canoe away from a sculling draw in a larger tandem boat so practice with the canoe heeled into the side displacement even though it may be less efficient.

Stopping

Stopping the canoe at the end or during any core skill, manoeuvre, or routine is a critical part of Style canoeing. It provides a crisp and clear beginning and end point of any routine or manoeuvre. The key with stopping is placing the paddle in a way that the provided force counters the movement and momentum in the motion of the canoe. Like a controlled sit this skill can be very difficult to master.

Forward stopping is done with either pushing the flat of the blade down into the water slowly a fair distance toward the trailing end of the canoe. Tap the canoe with the blade before starting to drag the paddle. The alternative is to use a compound back stroke with the power face of the blade turned forward and the paddle vertical. In both cases there should be a slight pitch of the blade toward the canoe.

Although most of us think of stopping when moving in a forward/reverse straight line it is also important to be able to stop the motion of a canoe during a side displacement or during a turn. Stopping smoothly during the middle of a turn is significantly more difficult and should be practiced.

Weight Shift

This is the ability to shift your weight in the canoe either by changing the kind of kneel, adjusting centre of gravity, or moving to another location. Shifting will allow the canoe to be heeled to either side, change the pitch, or allow cross strokes. Weight shifts are critical for controlling weight turns and important for completing or controlling many other Style canoeing manoeuvres. The trick with Canadian Style canoeing is to use subtle weight shifts keeping the focus on the canoe and not the paddler.

Combination Core Skills (Manoeuvres)

Circles

Circles are made by following an arc with a constant radius around a point. The longitudinal line of the canoe is kept tangential to the circle. An interesting thought experiment is to think about circles as having one pivot completed with every revolution around the circle.

When setting up circles for assessment it often works well to setup a connected circle course at the same time with two buoys two canoe lengths apart and then reference points on the line between the two circles and then at each of the four corners around the whole set (see the example with connected circles).

Circles may be of any size but all should have a constant arc, speed and distance from the centre. The suggested criterion for assessing a core circle is a radius of one canoe length (5m). The distance to the bow and the stern should remain a relatively constant distance from the center – it might be helpful to think of two equal length strings tied to a buoy or

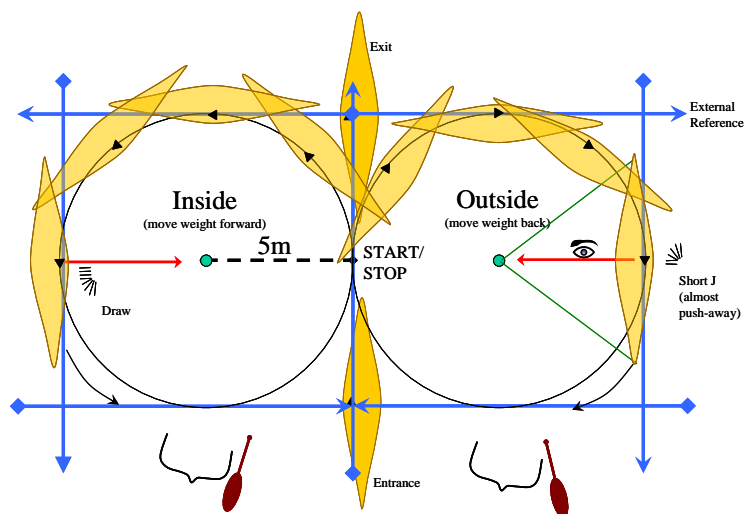
post at the centre of the circle. Students or instructors might even want to try using cord to practice. Inside circles are much easier with slightly forward weight and good heel (this includes off-side paddling outside circles). Outside circles are easier with slightly rearward weight and less heel – the back end of the canoe tends to wash out when doing outside circles; the rear weight and reduced heel help to control this wash. The weight shift only needs to be subtle to make a different. An extension of a basic circle is a spiral which can be fun to complete as a spiral into a pivot then reverse spiral out.

Inside circles are most easily completed using a draw at the leading end of the canoe followed by a short forward stroke. Outside circles are done with a short forward stroke and controlled using a J. An alternative to using a J is to heel the canoe toward the inside of the circle and use a cross forward stroke starting with a draw to the leading end. When style paddling it is perfectly acceptable to use cross forward strokes, and heel, to setup and maintain a circle (e.g. an ‘outside circle’ may be paddled with a cross forward, off side heel – essentially making it an inside circle paddled on the off side).

Connected Circles (including reverse)

Connected circles are two complete circles with a transition from inside to outside at the connecting point – similar to a figure 8 except the transition point is perpendicular to the line between the centre of each circle not angled like an X.

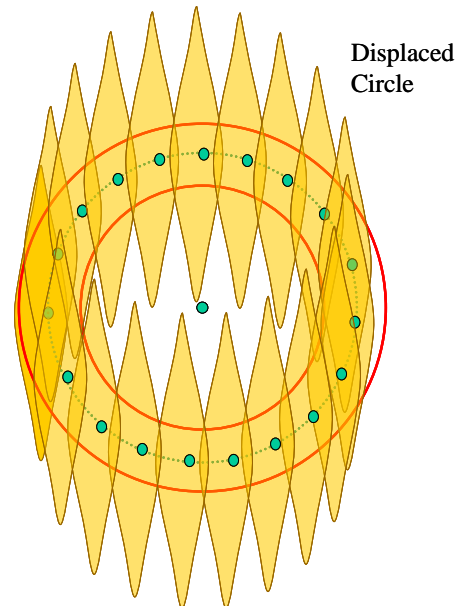
The most difficult thing about this combination manoeuvre is the transition. Carefully adjust your weight through the transition point if necessary. The most common problems happen at the cross over between circles – either by going through at an angle or continuing a straight line through the transition. It may seem counter intuitive after reading the section on weight placement but it helps to have the canoe slightly forward weighted on inside circles and rear weighted on outside circles. You will have more control since you are balancing the forces from paddling and the canoe (rather than letting the canoe turn on its own). It is often enough to complete a weight shift by moving from a low to a high kneel.



Paddling circles is one of the places that the shape of the hull and weight distribution in the boat can make a significant difference. Smaller solo boats are typically forward weighted making an outside turn easier to initiate but more difficult to control.

Displaced circle

Keep the canoe facing in the same direction (no pivot) and move the canoe around a circle. Some people find following the outline of a square easier when starting to learn how to complete a displaced circle then, with practice, round off the corners later using blended strokes. Use the circle or connected circles course for practicing. An extension of a displaced circle is circumscribing a circle while doing pivots (see line/arc pivots)

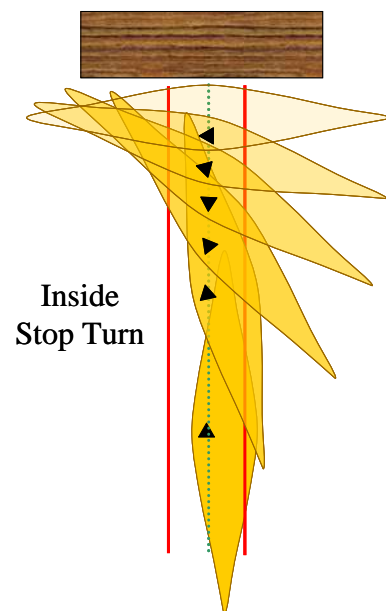


Displaced circles are done using a whole variety of strokes combinations and blends. Start with a subtle forward motion; add a slight draw but pitching the paddle; add more pitch near the top of the circle until doing a draw. Adjust the pitch to start pushing the canoe backward; continue to adjust the pitch of the blade between a forward, sculling draw, backward, and sculling pry.

Turns and Arcs (include forward and reverse)

A turn is a directional change of the canoe from any straight line motion. The directional change may mean coming to a stop or continuing along the new course. In most cases turns may only need to be initiated; the inertia in the canoe will carry the rest of the turn. Control can be done using heel, trim, and paddle placement. There are three basic types of turns; all can be completed to the inside and outside of the paddling side:

- Stop-turn is basically a landing (turn the canoe, stop). These turns are not power turns/stops but something more genteel and graceful. Stop turns are typically done using a reverse sweep (inside) and a trailing end draw. A stop turn can be thought of as a special case of a line pivot.
- Pivot turns are a turn with a continued motion, similar to a stop turn but pivot and continue. The turn may be any amount of angle; 90° continues in a perpendicular route to initial travel, 180° continues in same line but reverse (flip turn). Here again the intent is to maintain some motion throughout the turn. These turns are normally done using forward weighting and a running draw or pry (jam) toward the leading end of the canoe. A sweep may also be effectively used. Like a



- stop turn these can be considered a special case of a line pivot.
- U turns are broader turns (one or two boat lengths) returning back the opposite direction of approach. A smooth controlled U turn is often the most difficult to complete. These turns are done with a surface sweep, controlled J stroke for inside turns. Outside turns are initiated with a sweep and then controlled with J strokes. It is possible in both cases to use a running draw or pry but with less pitch and closer placement than would be used with a pivot turn.

Before doing any turns controlled by the paddle ensure that you can consistently complete inside and offside weight turns. If the initiation and inertia is going in the 'wrong' direction the canoe may only side slip, or worse continue to turn the 'wrong' direction. Weight turns should be introduced before the use of the paddle.

Weight Turns/Arcs (paddle free carving arcs)

Weight turns are executed without the use of the paddle to control the rate, direction, or speed of a turn. Weight turns can be done in both directions with the heel to either side and/or with canoe pitch forward or backward. Controlled weight turns should be completed demonstrating a range from a slight turn (e.g. 10°) to 180° or more without the use of the paddle during the turn. Weight turns can be slowed, stopped, or reversed. The basic concept of a controlled weight turn follows the concept of MITH (Momentum, Initiation, Tilt, Hold) as taught in other Paddle Canada programs but it requires a very significant degree of understanding of the forces on the canoe so the turn can be accurately controlled. See the discussion under 'Weight Placement' in this manual for a more complete description of the hull shape and forces involved.

Weight turns are an excellent learning tool for understanding how the canoe will move or turn based on even a slight amount of torque (turning force); even when there is little control weight turns teach the importance of initiation and momentum for regular turns. When first starting don't worry about the direction, control, or speed just paddle in a straight line, pull the paddle out, and heel the canoe – see what happens. Control over the whole turn after initiation is critical for all turning manoeuvres including skills like running side slips, circles, and transitions between different manoeuvres. These turns should be practiced until they can be completed with ease and without apparent initiation.

The successful completion of weight turns means the paddler recognizes, or can provide the slightest bit of torque in the canoe and then accentuate the trend through the use of weight and heel alone. The paddler should know which way the canoe will turn and how to control the turn by weight shifts alone. Heeling the canoe more and weighting toward the leading end will increase the rate of turn, less heel and weighting toward the trailing end will slow the turn. During the turn the paddle may be, at least, resting along the gunwale inside the canoe.

Criteria have been provided to give some guidance for the kind of control expected – the key at the intermediate and advanced levels is that the turn itself can be controlled – the motion of the canoe does not have to stop.

Although it will appear that the canoe turns as if by magic all turns need to be initiated. There are three distinct methods that can be used to initiate a weighted turn, although in reality all of the methods should be used together when executing a turn.

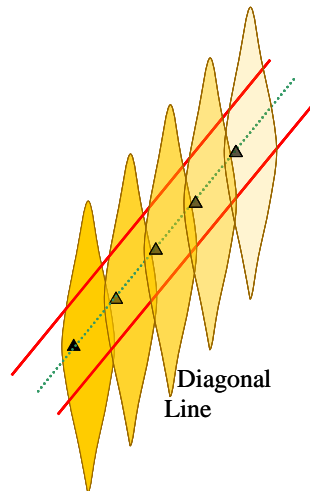
1. Paddle initiation – the turn is initiated by adding a slight amount of torque (turning force) using paddle strokes prior to the actual turn starting. Generally this should be almost invisible to the observer and the canoe should run ‘straight’ for up to a couple of seconds before the canoe starts to turn.
2. Hull initiation (see the section on edging – weight placement and heel). The hull of the canoe depending on trim and heel will initiate a turn due to the flow of water around the canoe. The style and shape of the hull can have a significant impact on the amount and direction of turning force applied to the canoe. Style paddlers need to recognize and understand the nature of their canoe since different hull shapes can have an apparent opposite effect.
3. Transfer of torque from body rotation. Following Newton’s laws rotating your body will apply a small amount of torque to the canoe. If the canoe is level (more turning resistance) and then heeled (less resistance) at the appropriate time the canoe will turn. Initiation through body rotation is very subtle; typically transfer of torque is most effective when stopping the body rotation. This generally means winding-up with the canoe level and then heeling the canoe dramatically when stopping the body rotation. Because this often involves a fairly large body motion it may not always be suitable for Style paddling unless the final body position is appropriate for a transition into the next move.

The amount of torque applied to the canoe to initiate a turn is in the order above. Transfer of torque and hull initiation can be overwhelmed easily by wind, current, and paddling. In all cases the amount of tilt (or heel) on the canoe will influence the speed and ability to control the turn.

The ability to execute weight turns is critically important to the art of style paddling. Style paddlers should spend enough time to practice this skill at every level since it will influence the ability to complete almost every other style paddling skill.

Diagonal line

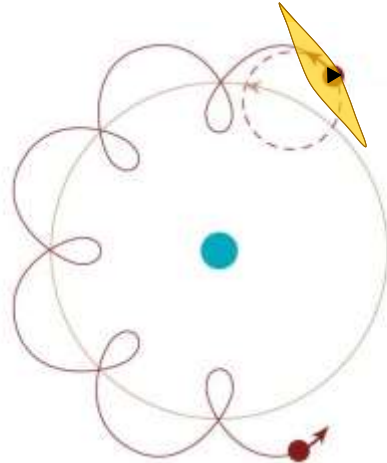
A diagonal line is similar to a running side slip or side displacement but it continues under power. The longitudinal line of the canoe is held at some angle to the line of travel (e.g. the canoe is held 20° off from the line of travel). When the canoe is moving a diagonal line can be initiated with a running draw (or pry) and then maintained using a modified pitch stroke and pitched recovery (similar to rolling J).



Line pivots (including arc pivots)

A line pivot is a continuous series of pivots along a straight line through the water. Line pivots can be extended by making the line an arc or even a circle. A line pivot is easiest to start from a straight line

then transitioning through a turn, similar to a pivot turn, then using a modified sculling draw/pry to keep the canoe moving. You might find it easier to think of starting line pivots by practicing angled side displacement and then increase or decrease the angle. A circle is a special case of an arc pivot with a single pivot for each revolution around a point ☺. Pivots that turn in the same direction as the arc are easier than opposing pivots (Think Spirograph).



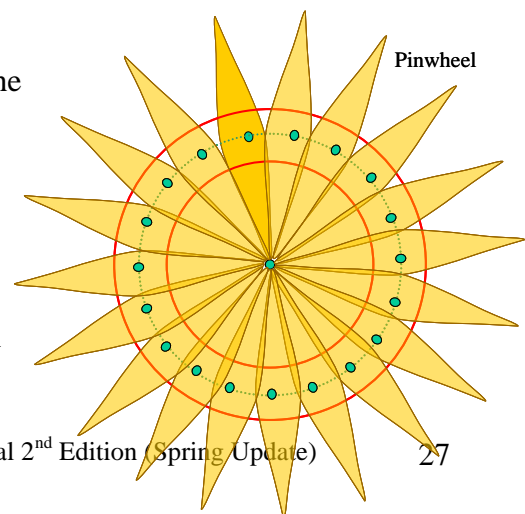
Running side slip (displacement)

A running side slip moves the canoe diagonally sideways while keeping the motion and longitudinal line of the canoe facing the same direction. Side slips can be done either toward the paddling side or away. Typically done with a running draw or pry but may also be executed with active combinations strokes (see diagonal line). The most efficient slips are when the canoe slightly heeled away from the direction of travel (e.g. outside slip with draw and canoe heel to the off side, off side slip with pry and corresponding heel to the onside). A slight turn initiation turn toward the direction of the slip makes the move easier to control.

When using static strokes (running draw/pry) having the face of the blade perpendicular to radial line from the pivot point will move the canoe sideways. This means that a running draw will be set behind the paddler (toward trailing end) and a running pry will be in front of the paddler (toward leading end). Offside running side slips (running pry) is more difficult to control and usually placing ahead of the ‘sweet’ spot and dropping back is easier to control with the least amount of momentum lost. When using standard draw/pry strokes both will be done at the point of lateral resistance (in both cases toward the leading end).

Pinwheel, centre pivot (bow or stern pivot)

The motion of a pinwheel is similar to a pivot except the pivot point is at the bow or stern of the canoe. The longitudinal line of the canoe stays on a radial line out from the pivot point. Pinwheels are typically done with sculling draw or pry strokes further away from the centre point than the paddler. The recovery of the scull pushes the canoe toward the stationary end (pin) of the pivot. You may find weighting the canoe toward



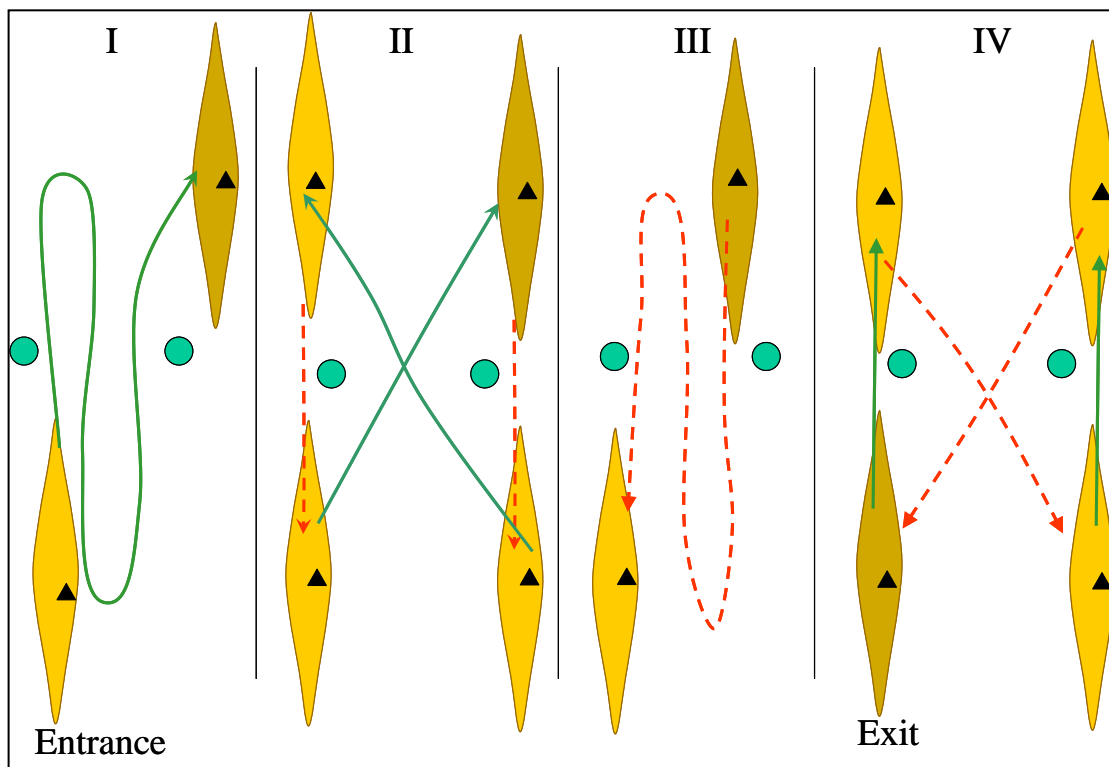
the centre point makes control easier but be careful since too much pitch will be harder to control.

English Gate

This is not an actual manoeuvre but a series of moves that are done through and around a compact 'English Gate'. The route that can be taken is variable depending on the source but in all cases it provides an excellent course for testing skills and building confidence. One route has been suggested here. The buoys are set several meters apart in open water. Without the gate the route taken represents a nice compact routine.

There are four components to the English Gate. Direction of the canoe is identified by the arrow and line colour – green is forward, red is reverse.

- I. Forward and through: Enter and pass through the gate, pivot and return, pivot and go back through the gate.
- II. Forward Crossover: Reverse passed the outside of the gate, cross over through the gate, reverse passed the gate, pass through the gate.
- III. Backward and through: Reverse through the gate, pivot and return, pivot and go back through the gate. This is the same motion as I but in reverse.
- IV. Reverse Crossover: Finally forward passed the outside of the gate, cross over through the buoys in reverse, forward past the gate, and lastly cross over to the original starting point.



American Freestyle Manoeuvres

American Freestyle moves enhance already familiar manoeuvres through the addition of weight shifts and body position. Each of the following manoeuvres, with the exception of the shift, turns the canoe and is done with the paddle planted in one of the four quadrants around the paddler – each manoeuvre also has corresponding cross, reverse, and cross reverse components. The kneeling stance is often a [transverse] high kneel with the heel to either side as required. The manoeuvres are usually done with the weight forward (in the direction of travel or leading stem). Each manoeuvre is typically done with compound or blended stroke with a static placement during in the middle of the manoeuvre. Each move is initiated and then completed with strokes or body positions that complement the prior or next manoeuvre. Some modifications to the usual moves will need to be made when paddling a larger tandem canoe.

Christie – Gradual inside turn with reverse surface sweep, canoe is heeled to paddle side with weight forward. Initiation is with a subtle C or J stroke.

Axle – Inside turn with a running draw, canoe is heeled to paddle side with weight forward. Initiation is with a subtle C or J stroke.

Post – Inside turn with a running draw, canoe is heeled off paddle side with weight forward. Initiation is done using a subtle C or J stroke.

Wedge – Outside turn with a jam or inverse jam, canoe is heeled to paddle side with weight forward. This move is initiated with a straight through stroke or subtle sweep.

Freespin- Outside turn with no paddle placement, canoe is heeled to the paddle side and weight is forward (see wedge). This is similar to a weight turn but with a significant forward weight to ‘pin’ the leading stem (bow) in place.

Shift – Side slip movement with heel away from the direction of travel. Weight is centred (no pitch or trim). This is similar to a side slip or a running side slip depending on the forward motion of the canoe.

Gimbal – This is a rotation on the spot, a pivot or small circle, usually done with a circle stroke. There is both an outside Gimbal with the paddle blade outside the circle and the canoe pivoting (see pivot, circle stroke, box stroke), and an inside Gimbal where the canoe travels in a larger circle with the paddle blade inside the circle (see circles, circle stroke).

Generally the paddle grip is kept at the same height throughout movements with a static paddle placement. Paddling strokes should be done with strong body rotation, keeping the paddle vertical throughout the whole stroke. Palm rolls and slicing recoveries are commonly used. American Freestyle encourages body movement and weight shifts in the canoe – the canoeist is visible and is part of the routine. When transitioning from onside to offside strokes feather the paddle over the canoe.

Completing American Freestyle manoeuvres in a larger boat, like the kind used in Canadian Style Canoeing, can be a difficult since this style of canoeing often requires many cross strokes and off side weighting (heel/tilt). When paddling in a larger canoe move further towards the leading end of the canoe where it is narrower and cross strokes can be completed easily; most of these moves require forward weighting in any case. Doing reverse moves will mean turning around, practice including this movement as part of the routine. The canoe continues to be moved in one direction but the paddler turns to face the opposite direction.

Strokes

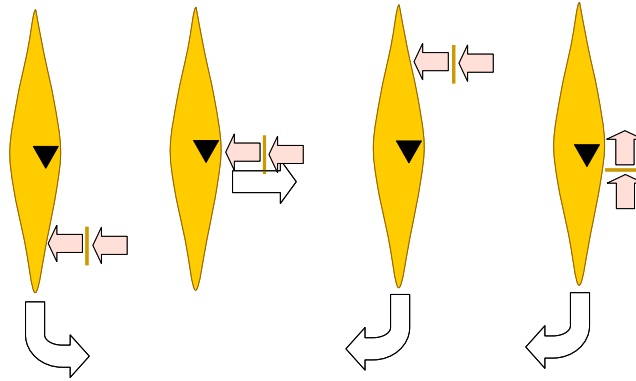
Style paddling often requires the blade to remain in the water using in water recoveries, and blending strokes together in many innovative ways. Rolling, static, sculling, and in-water recovery strokes are all used extensively in Style canoeing. At each level there will be a discussion of paddle placement and blade pitch including a distinction between static and dynamic strokes along with transitions between strokes. Although the style program focuses on the movement of the canoe having an understanding of specific strokes helps with the development of manoeuvres and for communication, and instruction. This section provides a brief discussion of paddling strokes most often used or modified in Style canoeing. A more complete description of canoe strokes can be found in the Paddle Canada paddling strokes resource manual.

An understanding of force & torque along with the associated relationship between body, canoe, paddle, and water is more important than knowing a ‘set’ of strokes.

Force – this is an influence that causes the canoe to change in speed and/or direction. It can often be thought of as a push or pull and has both a direction and magnitude. There are multiple forces that act on a canoe – one of those is the paddle force as it moves through the water. Another is *Drag* – the resistance force(s) that oppose the relative motion of the canoe (water and wind). Finally *inertia* or *momentum* which keeps the canoe going in a given direction once it has started.

Torque – this is the tendency of a force to turn or rotate the canoe around a pivot point; it can be thought of as ‘twisting’. The magnitude of torque is related to where the force applied, the distance from the pivot point, and the angle of the force (position of the paddle).

The paddle is used to apply a force to move the canoe – it is Newtonian mechanics. If the force is not through the pivot point (usually the paddler) then torque is applied and the canoe turns. Both force and torque need to be balanced appropriately for any particular manoeuvre. It is important to remember that the forces are also applied by the water and modified by the shape of the hull (see boat shape and weighting).



Examples of how the application of paddle force turns the canoe

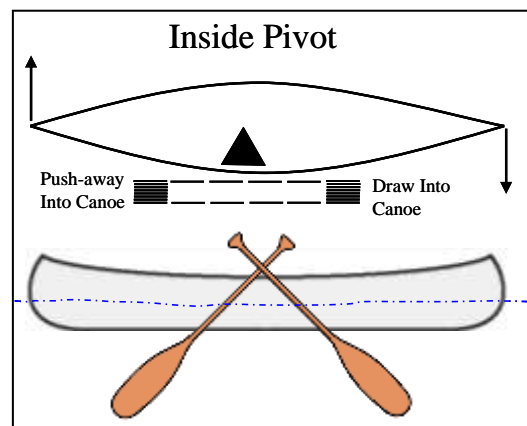
The canoeist should be willing to explore variations and alternative paddle strokes and placement on their own; developing personalized styles. Many running or static strokes can be executed one-handed to good effect.

Although this section provides a discussion of using the paddle to apply forces in different ways a force can also be applied to the canoe from other sources. The movement of the water over the hull can push the canoe in a specific direction (see Boat shape, weight placement, weight turns). Body rotation can also apply a small amount of turning force as well (see weight turns)

Box (triangle)

A box stroke is used primarily in pivots but may also be used in a modified form for doing line/arc pivots. The box represents the motion of the tip of blade through the water where there is a push-away followed by a slice through the water and a draw, followed by a slice back to the initiation point. The push-away and draw portions are done on either side of the pivot point next to the canoe.

This stroke can be done by moving the whole paddle forward and backward keeping the shaft perpendicular in the water. Alternatively, in a motion more conducive to style canoeing, the blade itself can be moved through the box keeping the shaft hand in one location. When choked up on the paddle this alternative can be done with very little apparent motion of the paddle; the blade itself moves a significant distance deep under the canoe.



The box can be modified so the blade follows more of an arc, triangle, or circle.

Circle (stirring the pot)

The circle stroke is modification of the box stroke where one side of the paddle blade continues to push the water in a complete circle. A portion of the stroke is well under the canoe; the grip hand must be outside the canoe with the shaft hand and forearm

[probably] in the water. This stroke can be completed from a high kneel or draped over the side of the canoe. In the low kneeling position both hands may be in the water allowing the blade to pass under and to the far side of the canoe. The pivot point is directly under the paddler and the paddle blade follows a circle around that point. The pivot point of the paddle is where the shaft hand is located. The grip hand will either push out or pulling in around this point – if the shaft hand moves the boat will move forward or backward. The blade may be feathered as it passes under the far side of the canoe. A palm roll or feathering will be required to maintain pressure on the power face of the blade.

An alternative to the circle stroke, sometimes called stirring the pot, moves the pivot point outside of the gunwale and the circle transcribed by the blade does not have to return as far underneath the canoe. In this case the canoe moves in a very small circle rather than a pivot but the difference can be very minimal (also see inside gimbal). With this modification the blade may be cut back through the water next to the canoe making it very similar to the box or triangle stroke.

Compound forward

This stroke starts off as a regular forward stroke, beside the paddler the power face is flipped rotating the grip thumb towards the paddler; the blade continues to be pushed toward the back of the canoe. This stroke is used in American Freestyle with a transverse kneeling position. It is rarely used in Canadian Style paddling.

Compound back

The stroke starts behind the paddler with the power face rotated forward and the shaft almost perpendicular to the water surface. The stroke is initiated with the grip hand knuckles toward the leading end, the thumb toward the paddler, and the elbow high. Start the catch near the side of the canoe well toward the back of the canoe, with the paddlers' body rotated to the paddling side of the canoe. The paddle is pulled toward the paddling position, the blade is rotated beside the paddler (switching the power face) so the grip hand thumb points out, and the paddle continues being pushed toward the trailing end of the canoe.

Canadian (related to Traditional, Northwoods, and knifing-J)

This is a family of correction strokes that all have a partial in-water recovery sliced forward through the water. The in-water recovery provides the correction. The blade is slightly pitched forward as it is sliced back through the water giving the feeling of lifting the blade. In all cases the stroke is fairly short. In style paddling the paddle rarely touches the gunwale, not because the paddle should not touch the canoe but the grace and fluid motion of the stroke may be broken by the use of the gunwale. Usually the blade exits the water before initiating the next stroke. As an alternative the blade may be kept in the water (like a rolling J) but there is no palm roll and there is a small 'flick' at the initiation point of a new stroke.

Inverted jam (Wedge)

From a high kneel, roll the paddle so the power face is away from the canoe and the shaft is braced against gunwale. The grip hand, thumb forward, is stacked above the shaft hand and the paddle is vertical. This is the opposite power face when compared to a running pry. Although the stroke is called an inverted Jam it is more closely related to a running pry since the paddle is held vertically in the water. This stroke is commonly used in American Freestyle when doing a wedge – turning the canoe away from the paddling side with a paddle side heel.

Jam (related to running pry occasionally called a bow rudder)

A jam is very similar to a running pry except the position of the blade is much further forward and further under the canoe. The paddle shaft is angled instead of perpendicular to the water surface. Usually a jam is used to turn the canoe quickly away from the paddling side. Be sure that the ‘top’ side of the blade is closer to the canoe.

A one handed Jam can also be completed holding onto the paddle near the grip with the shaft hand. As the canoe slows the jam can be transitioned to a one-handed pry by pulling the shaft hand into the canoe. Becky Mason has taken this move to a stylish and beautiful place by shooting the grip down to the loose shaft hand; the paddle is then skimmed over the surface of the water throwing a light spray of water. At the 90° point the leading edge of the paddle is rotated forward causing the blade to dive under the water, and knifed into the canoe just in front of the paddler, with the shaft braced against the hull (not gunwale). The shaft is held near the grip with a straight arm; the forearm is facing up. If necessary dynamic one handed pry is used to complete the turn. There are a number of modifications to doing a one handed jam and for many it becomes a point of personal recognized style (e.g. Gaspé pry).

Reverse jam

The reverse jam has the same paddle placement as the jam except in reverse. This is used to turn the canoe quickly when going backward. Good body rotation or transverse kneel is required to properly execute this stroke. Similar to the forward jam this stroke can be done one handed.

Reverse Rolling J

A reverse rolling J is similar to a forward rolling J. Initiation starts as a straight back stroke with the blade perpendicular to the line of travel, the shoulders are rotated so the upper body faces outside of the canoe. The grip hand elbow is low. At the end of the J portion of the stroke the paddle blade stays in the water with the power face away from the canoe and slices back through the water. Either through the recovery or at the point of initiation hand position changes (palm roll) allowing what was the back face to become the power face. The paddle rolls once every stroke switching the power face with each stroke. Similar to the Rolling J this stroke allows continuous control throughout the whole paddling stroke.

Alternatively the initiation can be started similar to a compound back except the power face does not switch but the hand hold changes to a straight back at the point that the 'flip' in the compound back happens. At the initiation point the grip hand elbow is high.

Students and instructors should note how vertical the paddle is kept especially in reverse strokes. The tendency in reverse strokes is to drop the grip hand inside the canoe and use less body rotation – both of these tend to force the paddler to follow the motion of a reverse sweep making boat control more problematic and the stroke is not nearly as powerful.

Reverse running draw

This is the same basic stroke as the running draw except it is used when the canoe is moving backward. Executing this stroke requires good body rotation or transverse kneel.

Reverse running pry

This is the same basic static stroke as the running pry draw except it is used when the canoe is moving backward. Planting and holding this stroke requires good body rotation or transverse kneeling.

Rolling J (silent or Indian stroke)

Rolling strokes, where the blade stays in the water, are very commonly used in Style paddling. This forward stroke starts off similar to a forward stroke or a C. At the transition point through the J or Canadian portion the blade stays in the water with the grip and shaft hand shifting to allow the blade to roll (palm roll); the power face is switched as it slices back to the catch or initiation point.

Running draw (related to Duffek and high brace)

The running draw can be placed in several locations depending if you want to turn or side slip the canoe. The paddle itself is perpendicular to the water surface, with the grip hand outside of the gunwale; the blade is initially parallel to the longitudinal line of the canoe. The pitch on the blade is opened in the same direction as the canoe movement until it just starts pulling the canoe toward the paddle. This stroke requires the canoe to be moving.

Running pry

This stroke is used for turning or moving the canoe away from the paddling side. The paddle is held next to the gunwale; the gunwale may be used for support. The shaft is perpendicular to the water surface and the blade is initially parallel to the longitudinal line of the canoe. The pitch on the blade is opened away from the direction of the canoe movement until it just starts pushing the canoe. The canoe must be moving for this stroke to work.

Sculling draw

The paddle moves straight through the water parallel to longitudinal line of the canoe. The blade is pitched open in the direction of the movement drawing the canoe toward the paddle. When executing this stroke choke up on the paddle and plant the blade deep. The scull can be done deep with the grip hand fixed in place allowing for the greatest

movement of the blade with minimal amount of observable grip movement. The grip hand should be outside of the canoe with a straight arm; this is the control hand.

This stroke is used for side displacement as well as diagonal lines and pinwheels. Even though sculling strokes are used extensively in Style canoeing there is also a place for standard draws, push-away, and pry strokes.

Sculling pry

Paddle moves straight through the water, parallel to longitudinal line of canoe. The blade is pitched closed in the direction of the movement. Choke up on the paddle and place the blade deep, almost under the canoe. Similar to the sculling draw there should be minimal motion of the paddle above the water surface. Again the grip hand should be outside of the canoe above the shaft hand; the grip hand controls the scull. This stroke is used for side displacement as well as diagonal lines and pinwheels.

Sweep strokes

Full sweep strokes, both forward and reverse, are used in both pivots and turns. The stroke is completed by choking up on the paddle, placing the blade perpendicular to the water surface next to the canoe as far as possible from the pivot point. The paddle shaft is angled to the water surface. The initiation portion of the stroke pushes out from the canoe and follows a broad arc through the water until it draws back in at the end of the stroke. In sweep strokes the control (grip) thumb is up.

Sweep strokes can also be executed just a small portion of the arc. A pivot, for example, can be done by doing a partial sweep in a 10-15° arc at any point around the paddler. These short little sweeps may be thought of as an off-set draw or push away if done next to the canoe.

Closely related to a reverse sweep is an arched bow draw – this is a draw follows the same line as a reverse sweep near the trailing end but the control thumb (grip) is pointing down. This stroke when paddling reverse is much more powerful than using a ‘normal’ reverse sweep.

Surface sweep (low brace sweep)

This stroke is basically a low brace run across the surface of the water in a broad arc. It is used for gradual supported inside turns and can be done in both directions. The canoe should be moving for this stroke to be most effective. One handed surface sweep holding the paddle near the grip is quite acceptable.

The Paddle

Whether you are just rambling around a nearby pond or off on a long backwoods trip it is the paddle that controls the movement of the canoe and you will be holding onto it for the whole time you are paddling. It needs to be both comfortable in your hands and on your body. If you have a chance try out multiple paddles and find something that fits you, in both size and conditioning, and works for your activity. For Style paddling look for something that is light weight and fairly stiff.

The size of the blade needs to match the task at hand as well as the paddler's size, strength, and conditioning. Canadian Style paddling using continuous strokes is typically uses an Ottetail or related 'quill' blade ($\pm 12\text{cm}$ wide). American Freestyle blades, with more braces, static strokes, and slower cadence are larger (20cm or more near the tip) with less rounded tips.

All Style paddling uses at least some in-water recovery and knifing strokes; the paddle blade needs to slice through the water with little resistance but still catch on the flat of the blade. The cross section, especially the edges, of the blade should be thin and expand more or less constantly to the midpoint of the blade. Take the paddle down to the water and knife the blade through the water (back and forth) fairly quickly holding the middle of the shaft in one hand. If the paddle wobbles, causes turbulence, or twists out then it probably will not work well in Style paddling.

Ask one hundred canoeists how long a paddle should be and you will get 100 different answers. In this program the length of the shaft should allow the blade to be fully submerged with the grip not coming above your nose. With Canadian Style paddling this means a fairly short paddle shaft as the traditional kneeling position is close to the water. American Freestyle, with greater use of high kneeling positions and cross strokes, will require a longer shaft.

Paddles with a symmetrical grip and straight shaft are typically used because rolling strokes are frequently used along with multiple paddle placements. The grip should be rounded on the top and smooth allowing many grip shifts and alternative holds. There are specialty paddles that have a ball on the top which provide an interesting option for use with Style paddling. You can find paddles with both round and oval shafts, try each and see which works for you. The paddle should be well balanced with the pivot point just above the throat (maybe two fingers). Pay attention to the finish of the shaft and grip, ensure that they are smooth and well finished. Kiln dried hardwood sanded with 400grit paper or fine steel wool and finished with oil provides a comfortable feel, yet it does not become too slippery when wet. Even though some expert Style paddlers have a preference for bent shaft paddles ($\sim 7^\circ$) starting with a straight shaft paddle will be easier.

Don't forget to get something that looks nice as well – you may be on display.

Boat Shape

The heritage of Canadian Style canoeing comes from the north woods where working and tripping canoes were the norm. Medium sized symmetrical tandem canoes (16-17, even 18 feet) with some rocker, round bottom (shallow arch), soft-chines and some tumblehome are the best boats for practicing Canadian Style canoeing. Because most of the paddling is done from one side the width of the canoe is typically not considered in Canadian style; traditional tandem canoes are fairly wide. 'Prospector' shaped canoes are often used for Style canoeing even though the amount of freeboard can cause problems when there is even a small amount of wind. A canoe with somewhat narrow entrance lines (stems) and then fairly full sides (wide for the length) will paddle better in turns and

pivots. When starting to do more complex manoeuvres, or American Freestyle paddling, that use many cross strokes, smaller canoes may be required – these canoes may still be moderately full through the middle.

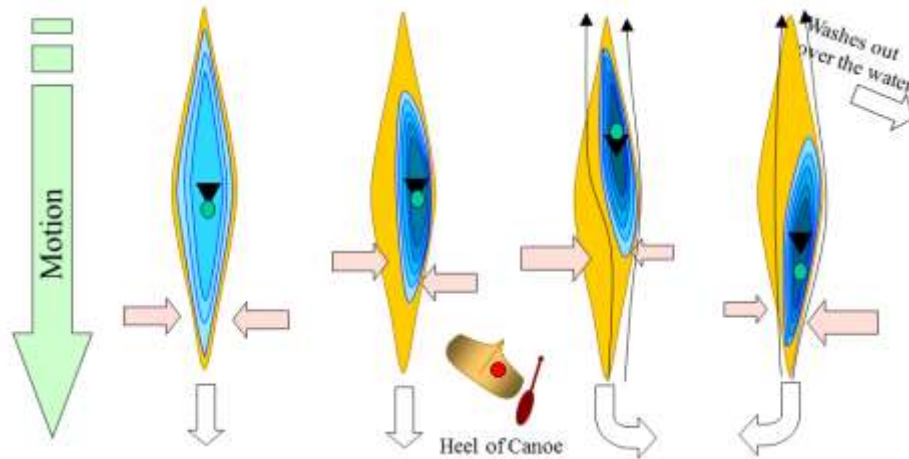
There are a few boat shapes that are more difficult to use in style paddling: Flat bottom boats are hard to edge [comfortably], a hard chine is difficult to maintain on edge, V-bottom boats with little or no rocker do not usually turn well when not heeled, and when heeled the flatter ‘bottom’ may make carving a turn more difficult. When Style paddling using a dramatic heel the ‘rocker’ comes from the shape of the side of the canoe not the bottom – the actual rocker of the canoe may have little relationship to the apparent ‘rocker’ when the canoe is heeled. American Freestyle manoeuvres with dramatic forward weighting often shine with small versions of typical solo boats. A more general discussion about canoe shapes can be found in the Paddle Canada resource manual.

Weight Placement (Trim/Heel) and Pivot Points

Most Canadian Style canoeing is done from just behind the midpoint or centre of the canoe with the canoeist kneeling to one side; the canoe is heeled (or tilted) to the paddling side. This position provides good flexibility in controlling the canoe since forces can be applied both forward and back of the pivot point. The discussion in this section applies to Style canoeing specifically; a more general discussion about weight and trim can be found in the Paddle Canada resource manual.

Consider using Forward and Rear weighting based on the direction of motion rather than Bow and Stern as much of style canoe movement is in both directions with the paddler sometimes changing the direction they face – bow/stern become more difficult to describe than weighting the canoe in the direction the canoe is moving (leading end) and the opposite (trailing end). Weight shifts do not have to be dramatic; a subtle movement, even from a low to high kneel is often enough.

Just like understanding the forces involved with paddling strokes it is critical that the Style canoeist understand the underwater shape of the hull as the canoe is heeled and pitched in different ways. Although the canoe can be turned using the paddle, working with the forces from the water on the hull will make manoeuvres easier. It is important to remember that a canoe is a displacement hull – meaning the amount of water displaced is equal to the weight in the canoe. Changing the trim and/or heel of the canoe will change the depth in the water as well as the hull shape. We have all been told that the waterline of the canoe is shortened when the canoe is heeled; the apparent rocker is increased by pulling the ends out of the water. But remember the canoe is a displacement hull so something has to sink as well. The maximum draft (depth) of the canoe is increased when the canoe is heeled to one side basically ‘sticking’ and holding the deeper spot in the water which makes turning the canoe around that point easier. An understanding of the actual shape of the canoe under the water helps with figuring out why the canoe turns faster (better) from some positions. Moving to one end of the canoe sinks that end deeper in the water and pulls the other end up out of the water.



A non-heeled (flat running) canoe has equal forces on both sides of the canoe and it will run straight. When the canoe is heeled from the near middle there is a small turning force away from the paddling side – by moving back slightly the turning force is balanced by the angle of the waterline across the non-paddling side and the ‘skeg’ effect of the trailing stem. Moving further back causes the waterline angle to increase the additional force on the canoe will naturally turn it toward the paddling side. When the canoe is heeled over and weighted toward the trailing end a ‘J’ may no longer be required. The opposite is true with a forward weighted canoe: there is more force against the paddling side bow and it will turn away from the paddling side. This is an over simplification of the forces involved; reality is far more complex. Paddlers will also need to account for the additional torque from paddling, shape of the leading & trailing stems of the canoe, resistance over the hull, and how much of the hull is actually in the water.

It is also important to know that the pivot point of a canoe also moves forward with the speed of the boat. When stationary the natural pivot point will be close to the centre of mass, as the canoe starts to move the pivot point moves forward as well. Don’t forget the pivot point will also move toward the ‘deepest’ point and forces from the water on the hull will have also an effect.

By understanding the forces on the canoe, the underwater hull shape, and the location of the pivot point, weight turns can be controlled by the amount of heel as well as the trim of the boat. Many turning manoeuvres can be completed using just momentum and subtle weight shifts. Practicing weight turns will give you a feel of how the canoe will turn naturally as well as the effect of any momentum in the canoe from prior strokes – understanding momentum and hull shape will make paddling a complete routine with multiple manoeuvres easier and appear more graceful and controlled.

The question that might come up is ‘if the diagram is correct why does it appear that weight turns seem to go randomly in either direction?’ It is important to remember that the force from the water on the hull is not the only force acting on the canoe. Any existing inertia (momentum if you will) may overcome the opposing force from the water. This is even more pronounced in a forward weighted canoe. Forward weighting sticks or holds the weighted leading end of the canoe in place (Bow Pin) and pulls the

trailing end up allowing it to ‘skid’ freely over the top of the water. The freed end acts as a long lever and has a much greater mechanical advantage for turning the canoe – once started it is very difficult to stop a forward weighted skidding turn. The forces that cause the ‘natural’ turn mentioned are overwhelmed by any existing inertia in the canoe with the un-weighted trailing end acting as a long lever – the canoe will go in the direction initiated.

Although J-leans are used extensively in Style canoeing there is also intentional use of bell-buoy leans and canoe tipping to enhance the magical appearance of the canoe and paddler moving over the water.

When watching some style paddlers you will see head stands, canoe running, gunwale standing, storks, cranes, etc.... All those things involve significant skill and movement of the canoeist within the canoe – they are not considered Style canoeing within the Paddle Canada program no matter how much fun it is to do☺.

Heel (defined and how much)

Heel is a nautical term used to indicate an inclined position from vertical. In canoeing terms this means to tilt or roll the canoe around the long axis and then holding the tilt [while paddling], typically 20-40 degrees. The term has been used interchangeably in many sources depending on context with tilt and edge. There are several reasons to heel a canoe: 1. Access to the water by the paddler in larger canoes, 2. Enhance or control the ability to turn a canoe by increasing rocker, shortening water line, and ‘lifting’ ends of the canoe, 3. Carve an arc or maintain a line (depending on chine shape).

How much heel is necessary and what is the ‘right’ amount? In style paddling the amount the canoe is heeled is, in part, about artistry. The amount depends on what you want to display and how you want the canoe to move through the water. As a general rule of thumb the more the canoe is tilted the more the canoe will freely turn. Understanding the shape of your boat will help, especially the shape and location of the chine – where the sides meet the bottom and if that edge is soft (rounded) or hard (pointed). In the style program a canoe with a shallow arch bottom will have soft chines so it is difficult to tell the optimum location, or even where the ‘chine’ is located. Pushing the rail to the waterline is usually more of an artistic statement rather than necessary.

The optimum heel on the canoe is when the chine is fully engaged in the water. This point can usually be found by starting to tilt the canoe until the chine is down and further tilting the canoe becomes more difficult (the heel ‘stiffens’). In some very round bottom boats (like a barrel) this may never happen, in other canoes the tilt does not have to be significant and continuing to heel the canoe will not make a difference, or may make the canoe less responsive. Mark the canoe with a piece of tape, or mentally, at the point of maximum curvature between the bottom and the side, kneel at or just beyond this point. Remember that the shape of the chine, the tumblehome/flare of the side, and the arch of the bottom continuously change along the length of the canoe; determine the amount of heel using the cross section of the boat where you are sitting or at the pivot point.

A canoe with a hard chine will carve better, by tilting the canoe so the chine is directly down it will become like a V bottom boat. The canoe will resist a side slipping and it will carve better. Tilting beyond this point the ‘bottom’ of the canoe flattens out again and the canoe will tend to slip around or wallow. Softer chine canoes will have characteristics of a round bottom boat.

It is very helpful to develop or at least understand the ‘stability curve’ of the canoe you are paddling in. A canoe with a soft arch hull, rounded chines, and some tumblehome will feel a little unstable when flat but it will have a similar ‘feel’ as it is rolled on to the side (heeled), and then have a slightly ‘stiffer’ feel when the canoe starts to flare, just below the tumblehome. There is an excellent article by Nick Schade of Gullemont Kayaks that describes stability curves and how they should be interpreted.

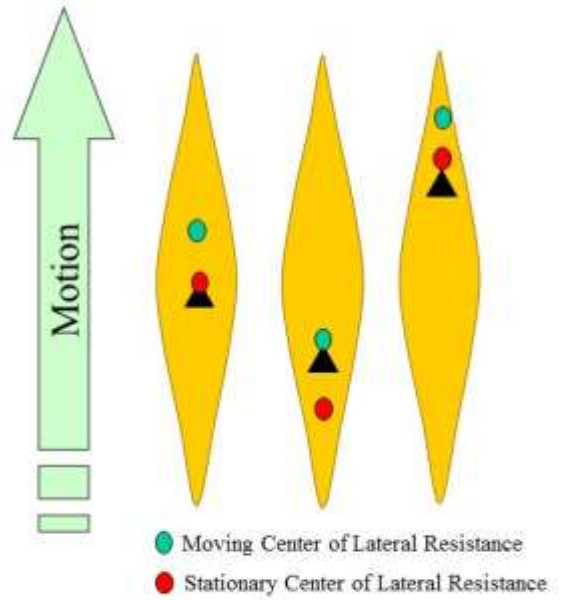
Canoe (Lever and Fulcrum)

Along with the apparent hull shape understanding the implications of the pivot point location in the canoe is equally important. With each manoeuvre consider where the pivot point is actually located in relation to the other forces (paddle forces and water moving over the hull). A canoe can be thought of as a lever with the pivot point the fulcrum, the paddle force one end of the lever and the water the other end – it is a little more complex than a teeter-totter but that is a starting point.

Some modified concepts from the sailing world can be used to help determine the location of the pivot point and the importance to style paddling.

- Center of Effort (CE) - this is the location of the force provided by the paddle and it is generally fairly self-evident although the pitch of the blade and the movement toward or around the pivot point is important.
- Center of Lateral Resistance (CLR) – this is the location on the canoe where the pivot point is located. In calm, windless, water push the canoe sideways with one or two fingers. If the canoe moves away at an angle, stop, move your finger towards the end which is closest to you and try again; take your time. Once you find the spot on the boat where the CLR is located, mark the spot. This is the pivot point of the stationary canoe without any load. Repeat this activity with a paddler in the canoe in several different positions, generally the CLR will be close to the paddler. The CLR will move toward the leading end of the canoe when the canoe is in motion so some adjustments will need to be made*.

* The location of the Center of Lateral Resistance may not appear to move significantly at the usual hull speed of a canoe and paddling station. Many people are adamant that it does not move and that it is always just in front of the paddling position – through careful experimentation I have found that it does move. Experiment for yourself but don’t use the paddle, or if you do then use dynamic out of water draw or pry strokes.



Measurements based on Bluewater Prospector at 4km/hr

When using dynamic draw/pry strokes the paddle motion is directly out from the boat at the CLR. Unfortunately when using running strokes (draw or pry) things get more complicated due to the direction of the force with a pitched or angled blade. When using running strokes the pitch of the blade is angled; the flat of the blade is held radially to the CLR – in practice this means that a running draw is often started behind the paddling position (toward trailing end), and a running pry is initiated in front[†] (towards leading end) of the paddling position. Just like the CLR the position of a running stroke moves with the speed of the boat.

Kneeling positions and alternatives

All kneeling positions are done keeping the body up-right and paying attention to appropriate posture – being hunched over does not provide a good paddling position.

Low kneel (Canadian)

A low kneeling position is the classic Canadian Style paddling position, with weight back on the heels. The knees are together in the chine or bilge of the paddling side. Often the paddler has a slight rotation toward paddling side. This is the most common kneeling position in Canadian Style canoeing.

High kneel

Similar to the low kneel except weight is high with body straight up from the knees. When paddling in this position (and Transverse kneel) remember to keep your weight inside the canoe – think of keeping your head over your belly-button.

[†] Tip: when attempting a running pry side slip start a little further forward than necessary at first and then move the paddle back toward you to adjust the side displacement. It is much easier to control the side displacement this way.

Shifting between low and high kneeling positions is often done to adjust the canoe trim during turns, circles, and paddling into the wind.

Transverse

This kneel is done facing the paddling side of the canoe. Knees may be in the chine with the heel toward the paddling side or weighted away from the paddling side. This position is used more often in American Freestyle and allows for multi-directional strokes. This position is generally done as a high kneel with knees spread.

Spread kneel (three point kneel).

This is a common position used when paddling in a narrow solo canoe or in moving water conditions. This position allows easy transitions, cross strokes, and weight transfers on both sides of the canoe. It is less often used in Canadian Style paddling due to the width of the canoes used and the added difficulty of getting a significant heel on the canoe.

As with all other padding styles there are variations and continuums between the above kneeling positions. You are also not limited to just kneeling, sitting is acceptable if the manoeuvre can still be completed. In American Freestyle you will often see people on one knee in a forward thrust position (similar to a racing stance or lunge), with one leg stretched out for balance, or with a knee braced on the ‘rail’.

Kneeling for extended periods of time can be difficult on knees and ankles. There are several things that can be done to minimize the stress and pain. Warm-up, and regular movement, even if it is just periodically changing from low to high kneeling positions, allows blood circulation and relief. Practice – the more time you spend practicing (without overuse injury) the easier it becomes. Kneeling pads – these should be large enough to cover the area that you will be moving in the canoe and may be composed of thick neoprene, closed cell foam, or yoga-mats. Kneeling pads should not absorb water and should not be slippery when wet. Ankle support using a rolled towel or rolled end of the mat under the ankles is often very helpful. Some people have kneeling pads made with a ‘lump’ across one end – this is not recommended because of the variation in kneeling positions. Placing a thin closed cell foam pad behind your knees can also help. Bum support is important for keeping comfortable as well. The bow seat (facing backward) or a kneeling thwart can be used for support; a stuffed stuff sack can also be used. Becky Mason has long advocated the use of ‘Saddle Bags’ – foam chips or similar in a waterproofed stuff sack. A full stuff sack still allows good motion, provides some support, and conforms to your body and movements. A prayer stool or meditation bench has been suggested and tried fairly effectively – they allow the user to kneel like a kneeling thwart but may also be easily moved.



Style paddlers should try a variety of options and use something that fits their needs and limitations. Supports and seats help reduce pressure on knees and ankles but they also limit movement in the canoe. Novice paddlers usually find seats helpful but as their paddling becomes more advanced thwarts and seats may get in the way.

Paddling Positions – Strengths/Limitations

Position	Strength	Limitations
Kneeling	Best power position and greatest possibilities for movement, body, and boat control.	Difficult to stay in one position. Knee and ankle injury possible.
Seats	Best for comfort and support.	May be too high or difficult to get feet under. Rotation and forward/aft movement in canoe limited. Difficult to set and maintain a good edge (heel). Limits movement in canoe. May not provide the best connection with the canoe.
Kneeling thwart	Good power position and connection to canoe.	Limits movement in canoe. Pressure on knees may still lead to injury.
‘Saddle’ bags	Good kneeling position. Ability to move in canoe allows for weight transfers provides support.	Soft ‘bag’ may not allow good connection to boat. May be difficult to move enough. May not provide enough support.
Pedestal	Good power. Provides support and allows body rotation and contact with boat.	Movement restricted in canoe to location of Pedestal.
Meditation Bench	Good support. Allows good body position and some movement in canoe.	Moves, difficult to keep in one spot. Hard to maintain connection with canoe. Kneeling position may still lead to long term injuries.

Assessment - Corridor, Pitch, Yaw, Roll, Transition

The end point of style paddling is open water manoeuvres and routines. Assessment of core skills with buoys and/or a dock is used only to show the level of boat control needed during open water displays and must not be the focus or end point of the skills in this program. Instructors may prefer to do much of their teaching and assessment without these aids.

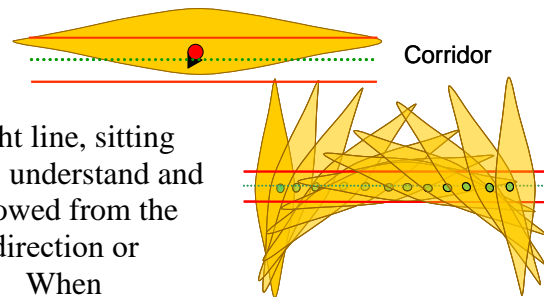
At each level core skills may be assessed on suggested criteria. An understanding of the assessment criteria is important for both the participant when practicing as well as the instructor when assessing skills.

Open water manoeuvres and routines are much more subjective as there are no specified criteria, assessment should be based on the ability to complete each manoeuvre and routine in a smooth continuous and controlled fashion. Students should provide a script or story board for their routines to show they can develop and follow a defined and repeatable series of moves. Instructors should take into account that open water manoeuvres will have some degree of personal style and may be affected by environmental conditions (e.g. wind). Students must recognize a complete routine, including the entrance and exit, should be smoothly and intentionally executed and controlled.

The ability to maintain a clear corridor is critical when paddling in a synchronized routine – failure in boat control will be easily identified in open water routines. The difficulty in some cases when evaluating a multi-canoe routine is identifying where the problem lies.

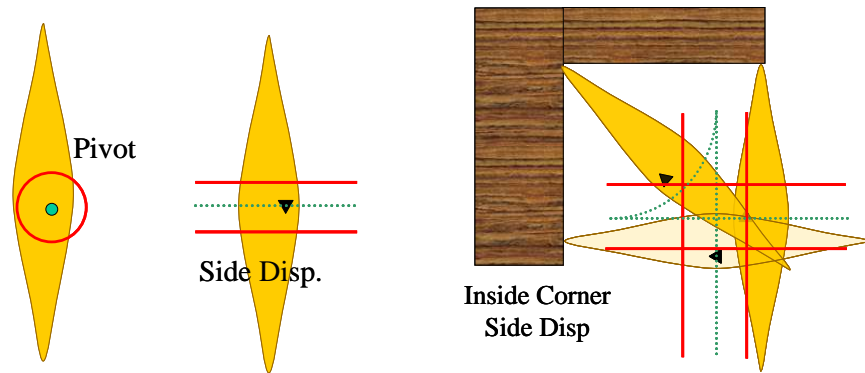
Corridor

The corridor that a canoe travels during a particular manoeuvre is the first and most basic assessment criteria. When moving along a straight line, sitting still, or pivoting it is relatively easy to determine, understand and assess. The corridor is the total displacement allowed from the 'normal' direction of travel; it may be all in one direction or divided in both directions from the starting point. When executing more complex manoeuvres it can be more difficult to determine the correct corridor. When looking at corridors follow the canoeist (or the pivot point of the canoe). In the diagram to the right notice the canoe moves around but the actual line taken by the pivot point is straight. With line/arc pivots, diagonal or offset lines, running side slips, and many other manoeuvres the canoe itself will not be a good indicator of staying within a specific corridor.



When trying to follow a corridor use external markers or buoys to mark the line of the corridor. Line up two or markers and keep them in line or in the same position at identified points in the manoeuvre. It may be helpful to setup multiple buoys so you can see/assess the actual motions.

When instructors are assessing a corridor that follows a line they will try to find a location that allows them to look along the line and pick out a marker (buoy or far shore) to track the offset or drift. When assessing the corridor for arcs or circles they might find a location as high as possible above the canoeist and use a constant marker or buoy to measure from/around.



Pitch or Trim

Pitch is measured from one end of the canoe to the other. Canoes that are pitched or trimmed forward can be more difficult to control. A very subtle imbalance can be difficult to detect but can have significant implications on the way a canoe moves through the water. There are many manoeuvres that are done with the canoe weighed to the leading stem as this allows the canoe to turn easily with a bow pin and skidding trailing end.



Yaw

Yaw is the unintentional rotation around the vertical pivot axis of the canoe – think of a post going through the top of the paddlers head down through the canoe. When traveling in a straight line it is fairly easy to detect problems with yaw, but sometimes it is difficult to correct. It is much more difficult to detect and correct when moving around an arc or other compound skill since the actual angle of the canoe must change constantly throughout the manoeuvre. Watch for appropriate and consistent changes of the angle or direction of the canoe. When paddling use the centre thwart to line up to the middle of arcs/circles or the long line of the canoe to line up with the corridor markers. Just like watching corridors instructors may find a high place nearby, such as a lifeguard chair or bridge, to watch from above.



Problems with yaw may be difficult to spot but the outcome later in a manoeuvre or routine will be obvious (e.g. outward pointing yaw in a circle will cause the canoe to spiral out or form an oblong circle with square corners). It is especially noticeable in connected circles where poor control in the first circle can completely mess up the second.

Remember that the amount of unintentional yaw, like the displacement in a corridor, can be in either or both directions.

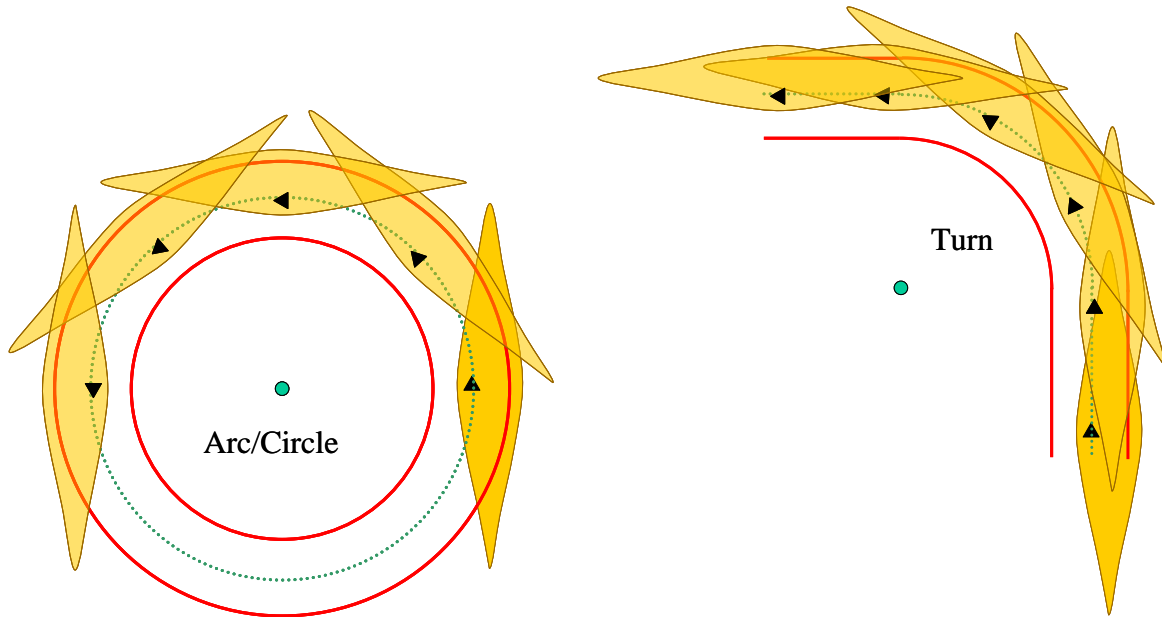
Roll

This is the unintentional rocking of the canoe side to side around the long axis of the canoe (sometimes called bobble). In most Style canoeing there should be little or no unintended roll of the canoe when executing manoeuvres. Heeling the canoe (leaning or tilting to one side) is acceptable when it is the intended motion.



Combined Corridor and Yaw

During any manoeuvre consideration must be made of all of the criteria – the combination of both corridor and yaw are the most difficult to assess. This combination is most difficult to envision when scribing an arc or traversing a diagonal or offset line. Because the view point of an instructor is usually to the side rather than above the canoe spotting inconsistencies in both the arc and corresponding angle (yaw) is difficult and often requires a significant amount of practice to see. Remember that an error or out of line portion of a manoeuvre may not be obvious until something else appears out of line later in the routine.



Transitions

Transitions between manoeuvres during a routine are a critical and important part of Style canoeing. Students and instructors should consider the whole routine rather than just each independent manoeuvre – every transition, including the entrance and exit, is a manoeuvre in itself. When going through a transition from one direction to another the switching point needs to be anticipated and acted on ahead of time, a little. The canoe will have built up momentum which will need to be countered when entering the transition zone, not at the transition point or when exiting the zone – this is especially noticeable in connected circles and routines where there is a dramatic change in direction. The concept of using ‘complementary opposites’ may be helpful to make a transition crisp – e.g. when starting a motion add a slight opposite force such as a C stroke when starting a straight line.

Warm-up Activities

The following warm-up activities are suggestions prior to each session. When warming up the focus should be on each body region and flexibility. Warm-up routines should also include some ‘straight’ paddling and simple manoeuvres.

Warming up is important to improve flexibility, increase blood flow to muscles providing nutrients and oxygen; prepare muscles for stretching. Muscles that have been warmed up are much less susceptible to strain injury and improve training. You should provide at least 5-10 minutes of warm up activities; these activities should increase your respiration slightly and raise a slight sweat. Although paddling often focuses on the upper body attention should also be given to hips, knees, and ankles.

Warm up Activities:

Jogging on the spot, light jumping jacks, arm circles, lunges, ankle circles, hip circles, 'big-high' steps, side lunges, arm bicycle, wall push-ups, torso-rotations, partial squats, and knee-elbow touches, sit-ups (curls, crunches, and side-to-side) are all good starters.

Stretches:

Stretching should only be done after a general warm-up has been completed and should be slow and sustained. Shoulders, chest/bicep, triceps, legs (hamstring & quadriceps), upper and lower back (touch toes) should all be focused on when stretching and warming up.

When finished paddling a warm-down should be completed that is similar to the warm-up activities, stretching and slow-active movement of hips, ankles, knees. These last joints are often not used during Style canoeing but are put under considerable stress from kneeling positions.

Practice Activities (tips and tricks)

“Believe me, my young friend, there is nothing- absolutely nothing- half so much worth doing as simply messing about in boats.” - Kenneth Grahame

There are many 'tricks' that paddlers can use to help practice technique, smooth out transitions, and learn about their paddling skills. Some of these have been mentioned elsewhere in this document but this section pulls the information together. Learning about how far you, and the boat, can go or how the boat will move under various conditions is important when developing your own manoeuvres and routines. Practicing is the most important part of any skilled activity.

Don't be worried about getting things wrong, or getting wet. We all fall out or tip over; it is part of the learning process. *“Someone who never tips doesn't know the tipping point until it is too late.”* – Anonymous

Not every one of these will be helpful or useful for all paddlers or every manoeuvre but take a look, try some out – see what works.

- *Blindfolded* – When paddling or practicing put on a blindfold or just close your eyes during a manoeuvre. Try to feel the movement of the canoe around you and over the water – see if you can maintain a course (or point) without looking. I

find this technique best done quietly but some people like to have someone on the shore or in another canoe call out instructions.

- *Buoys and Markers* – When first starting or warming up find a marker that you can use to keep you focused. A marker can be anything – a water weed, a bridge pylon, dock, a stick on the shore. Be careful not to get too focused on markers – go out in the open water and just fool around as well.
- *Expand your horizons* – Many of us come to Style paddling from other venues – tripping, moving water, etc... Style paddling is a way to hone and keep your precision skills. The reverse is also true – if you like to ‘Dance’ with your canoe spend some time in other venues to learn the how the canoe behaves in other ways.
- *A little help from a friend*. Paddle with a friend or partner in synchronized paddling – parallel, interlocking, etc...
- *Dry land*. Walk through the manoeuvre or routine on land with a paddle. Visualize all of the motions of the boat and paddle.
- *Imagine* – Think about the motion and route that you will be taking. Visualizing the manoeuvre in your head, how it will feel, where it will go.
- *Just Stop it* – sometimes there is too much of a good thing. If you are getting frustrated and completing a skill is just not working (this is the 100th time trying to do a stop turn) then stop trying, go do something else. Try working on a different skill or just out of the boat and go home; come back another day. It might be enough to take a thirty second break to ‘shake it out’.
- *Non-dominant paddling* – We often get stuck in a rut or a bad habit and breaking out is difficult. Some experienced paddlers have a difficult time with new strokes, or even old ones, paddling on their non-dominant side often helps. There are typically no ingrained habits on the off side so it becomes an easier task to learn. By the intermediate level style paddlers will need to be able to complete skills on both paddling sides anyway – why not start early?
- *Paddle in adversity* – When first learning to Style paddle we like to have a nice quiet bay or protected space and then when we have problems we blame the weather, current, the ripples from Joey’s gunwale bobbing, etc... Paddling in more exposed places – a little wind or current - will make you think harder about what needs to happen.
- *Practice* – Funny that this should have to be said but it surprising the number of people that expect to be able to hop in a canoe and paddle (stylishly) without any practice. This is especially true of people that will spend hours practicing and studying in other venues.
- *Just do it* – OK I know I said ‘just stop it’ elsewhere but sometimes, for the same reason, we get too focused on a particular task and inside (mentally) we get jammed up. It can be helpful to let it all go and not worry about the little stuff – feel the motion, become one with it, let it flow over and around you.
- *Sink slowly* – Getting a good heel on the canoe is difficult for many people since it feels unnatural and tippy but it is very important for Style canoeing and completing manoeuvres. To get a feel for where the canoe will actually tip heel the canoe and slowly dip the gunwale under the water until it sinks (or at least fills – I hope your canoe doesn’t sink).

- *Sit-up* – Remember your grandma placing a book on your head and having you walk around? Although not quite the same it might be something to try – posture is important for demonstration and looking good but this little trick will also keep you still in the boat. You don't have to use a book but think about your posture while you paddle – unless done on purpose being hunched over is not a strong paddling position. The other important thing to remember about posture and body position in the canoe is keeping your bottom and top independent – allowing the canoe to move underneath you and keeping your head over the boat. Review the Correction and Detection Pyramid along with the Training Pyramid.
- *Something else* – Take some time to do an activity that supports your paddling but seems to be completely different – weight training (strength), yoga (flexibility, motions), cycling (balance), pilates (core strength), play music, sing, whistle...
- *Teach* – Try to explain how to do a particular manoeuvre to someone else or write up instructions that someone can follow. Having to teach or tell someone else clearly will often force us to focus on what is important and how a skill is actually accomplished. Be prepared to answer the why and how questions. Take a skill and boil it down to the bare essentials – a paragraph. Watch someone else and see if you can detect problems and suggest, nicely, alternatives or corrections.
- *The Can* – Place a moderately weighted cylinder (soup can, water bottle, etc...) in the chine of the canoe. When paddling a smooth manoeuvre try to keep the container from rolling around. Alternatively add a second container perpendicular to the direction of travel. This little trick will show you when the canoe is rolling side to side and often by watching the can, without thinking about the strokes or body position, your paddling will become smoother.
- *Video (movie star)* – With the advent of inexpensive digital cameras that can record quick time, mpeg, or avi movies this is easy to do. A few years ago I thought I would make some short videos to post on my web page to help explain some skills. I mounted the camera on a tripod, started it recording, and then hopped in my canoe and paddled a few routines. I was surprised how much it helped me to watch, detect, and correct myself.
- *Vision* – Look outside of the boat and your paddle. The further you look away from the boat and yourself the greater control you will have with improved balance and posture. Your manoeuvres will improve dramatically if you are watching the world around you and not the bottom of the boat. This seems to be counter to the 'blind folded' advice above but both give you feeling of place – staring at the bottom of the boat or your hands gives you neither.
- *Watch* – I remember the first time I saw someone doing American Freestyle. It was on a little river near where I live, I sat on the bank and watched quietly and un-noticed. When they were done I went out and tried until I could do some of the same things. It was only much later that I took a course and discovered this discipline had a name.
- *Weight turns* – Weight turns are an incredibly powerful tool for understanding the behaviour of a boat. This is one of the first things I do when getting into a new boat since it allows me to get a feel for how it will behave.
- *Why and How?* – Ask yourself 'Why?' when paddling. Why does a static draw turn the canoe, but also move the canoe sideways? Consider power, torque, and

force – the flow of actions and what comes into play for a particular manoeuvre, how can they be adjusted. Consider how everything comes into play – body position/movement, weighting, paddle placement. What does each add? Can the skill be done using only one of these? Don't assume you know the answer. – start from scratch and work out. Review the stages in the Training Pyramid.

- *Paddle in time* – When paddling with multiple people try paddling 'in time' and match the motion/speed of the canoes.

Choreography

Choreography, literally “dance-writing” from the Greek "χορεία" (circular dance) and "γραφή" (writing), is the art of designing sequences of movements in which motion and form are specified. A routine can be improvised and spontaneous, or it can be planned with a specific set of goals and defined movements based on a set of guidelines. Don't fret if you feel that this sounds a little too much like dance class – a routine can be just a set of mastered skills and transitions.

“Choreography is simpler than you think. Just go and do, and don't think so much about it. Just make something interesting.” - George Balanchine

When developing a choreographed routine the following items should be kept in mind throughout the process.

1. Story or idea – What do you want to say, is there an emotion or pattern to convey.
2. Space and location – Style paddling occurs in defined space, bay, river, small pond. The routine should fill the area available but also consider the audience's ability to see. Make sure there is a clear place to enter and exit the routine.
3. Guidelines (required skills) – At least some of the skills or manoeuvres developed as part of the level should be represented during the routine.
4. Audience – Is this a personal routine or something for display. If you do have an audience why did they come and what do they expect/want to see. What will hold their attention?
5. Equipment required – This may be as simple as a canoe, PFD, and paddle but it may also extend to props. Don't forget to think about the kind of canoe and paddle.
6. Number of people/canoes – Interactions and relationships between the paddlers is important and must be considered. How paddlers and boats will be synchronized. Power, rhythm, and strokes should be complementary.
7. Skill level of participants – This is an important consideration when developing a routine that includes multiple people. Not every portion of the routine needs to be paddled at the same level. Routines should be developed to display the ‘best’ skills of the individuals paddling.
8. Time – How much time is required to complete a routine, is there time for transitions. Remember even at the advanced level the criteria for testing is only 6-8 manoeuvres. A long routine is not required or necessary to memorize. Consider 2-5 minutes depending on the level of skill and ‘story’.
9. Music – Do you want to use music/sound to pace or support the routine? What kind of music do you want to use and is it conducive to the limits of a paddled canoe? Music provides an excellent tool to help tell the story, set the tempo, and keep the flow. If you are using music ensure that the routine follows the music. Instrumental music is a better to start with than lyrical since small errors and adjustments can be made with instrumental pieces and not be as noticeable.

Suggestions when building a routine

- Contrasting elements is an important technique to keep the attention of an audience. If a whole routine is the same speed and follows the same general flow it will not be interesting. Changes in speed, angle of turns, pitch and heel, breaks and voids all provide some contrast; don't overdo it though.
- Longer routines should have a common thread or repeated motion – this may just be a short simple transition between contrasted manoeuvres. These will tie the whole routine together.
- Memorable moments (a small number). Look at using a few outstanding moves and ensure that these are nailed. Work hard to make those few focused moments spectacular, even if they're difficult and take a lot of time to perfect. Build around and up to these moments placing them where they can be seen clearly and highlighted by the preceding and following movements.
- Not everything has to be cool, difficult, and exciting. Transitions and down time are just as important as the 'memorable' moments. Basically don't fill your routine with 'see what I can do' items as this generally makes for a choppy and broken routine.
- Consider entrances and exits. Where are you going to start and finish, how are you going to enter your routine?
- When there are multiple paddlers make sure that one is not distracting from another. Use complementary moves or if there is a 'memorable' moment being done by one canoe have the other engaged in a supportive motion that points to the central canoe.
- Think about what side of the canoe will be facing the audience. In dramatic moves the open or paddling side should face the audience. This will not apply in all situations (e.g. pivots) but remember audiences prefer to see the front of the paddler and open side of the canoe.
- Enjoy the process of making a piece. You'll be tempted to focus on the final result, so don't miss the satisfaction of the creative process, and the joy of paddling, along the way.

Storyboard development and/or scripting are important tools in developing a timed and planned routine for presentation or display. The primary advantage of pre-choreographed material is it allows for organization of time, resources and assuredness that you have a clear end point and outcome. Pre-planning will also help with instructors assessment of a routine as they will be aware of what you intended on doing – this can also be a detriment and limit the possibility of in line corrections and improvisation. There is no standard for how to describe and mark out routines so use something that works for you. The amount of detail provided can be very simple – a few scribbles that help you remember the order, to a set of complex drawings. When there are multiple paddlers everyone involved needs to understand what you want to make.

Storyboards

Storyboards are drawings of the routine and the area that is going to be used. These may be a single image with the pattern marked out (e.g. following routines) or multiple images with logical breaks where there is a clear transition or change in the flow of the routine (e.g. English Gate earlier). When working with groups of paddlers storyboards are

probably the most effective way to get your ideas across to everyone. Bring a white laminated sheet and white board marker to use on the water.

Scripts

Scripts are generally a set of notations that indicate the order of moves to complete. In more advanced scripts musical scores may be annotated with the moves that correspond to each frame in the music.

- Entrance – straight line from left.
- Pivot centre - stop and reverse away from shore.
- Reverse surface sweep, half circle back to centre.
- etc...

Synchronized Paddling

Synchronized paddling needs to be considered when paddling in groups. It does not necessarily mean paddling (strokes) at the same time but it does mean movements, strokes, timing (rhythm) need to be complementary. Paddlers should consider the size and shape of the boat and paddles. When paddling in a multiple person routine the boats used should be complementary or match the presentation – usually this will mean the same size and style. Paddles should be matched to the paddlers, boats, and weight; a similar stroke length and speed will move the canoes a similar amount. This may mean different size of paddle and blade for different people.

Paddling in groups makes routine development more complex since paddlers need to consider the timing and position of the other boats and paddlers.

Sample Routines

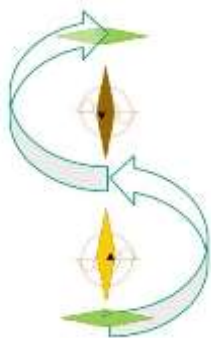
There is almost an infinite range of routines that can be followed; this manual provides just a few illustrative examples. In the resource section there are several websites and books that provide many more examples. Course participants will be expected to create and demonstrate their own basic routines starting at the Intermediate Style level. Routines should be developed using a series of interconnected manoeuvres in open water. Transitions between each manoeuvre should be fluid and graceful – making the transition appear as a manoeuvre on its own. Some people will set their routines to music; music often helps with the timing and the flow of the routine – but it is not necessary.

At the Intermediate and Advanced levels canoeists should be encouraged to try improvised routines or follow a routine called out by the instructor.

“The art of choreographing is concealing the artifice of choreography.” - Richard Powers

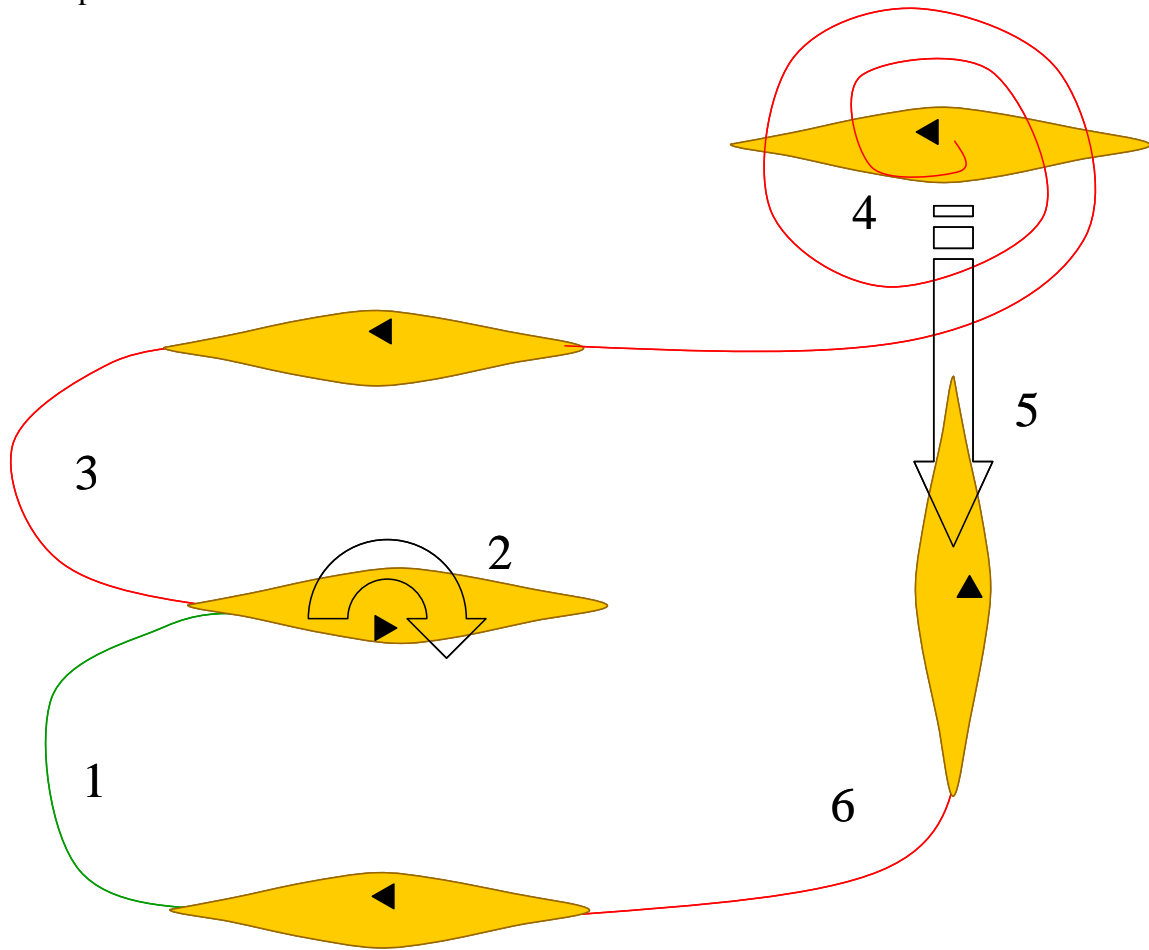
Here are a few classic short routines that even Introductory paddlers should try.

1. Head-to-Head pivots (either same direction or opposite)
2. Interlocking pivots
3. H or T formations where the central canoe pivots and the ends (or Top) follow the bow/stern of the central canoe.
4. Parallel, ranked, or synchronized paddling – any pattern with canoes side by side
5. Shared circles – two canoes completing either tight or loose circles in parallel either in the same direction or the opposite direction
6. Reflected patterns (similar to parallel but as in a mirror). Stop turns when heading towards each other are the classic example, although turn and continue works well. Consider reflected or mirrored circles.
7. Head-to-Head pinwheels with two or more canoes
8. Pile-up. Done with several canoes using stop turns at a dock or other landing.
9. Figure 8 with outer canoes following bow – switching at mid point.



Solo

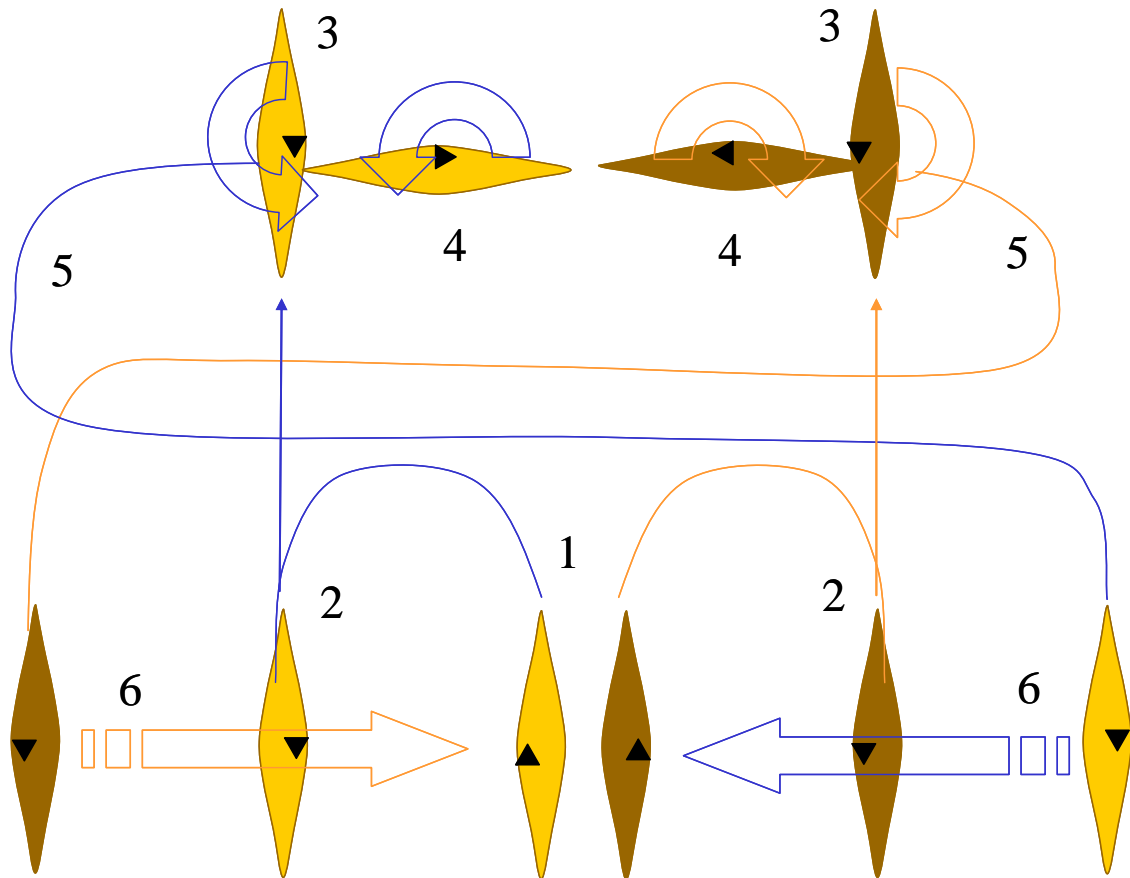
Example of a short solo routine at the intermediate level.



1. Forward arc one canoe length out.
2. Stop, inside pivot 2 times
3. Backward arc and through
4. Reverse spiral to pivot transition to
5. Line pivot (0.5 turn) to reverse line
6. Reverse curved line to starting position.

Duet

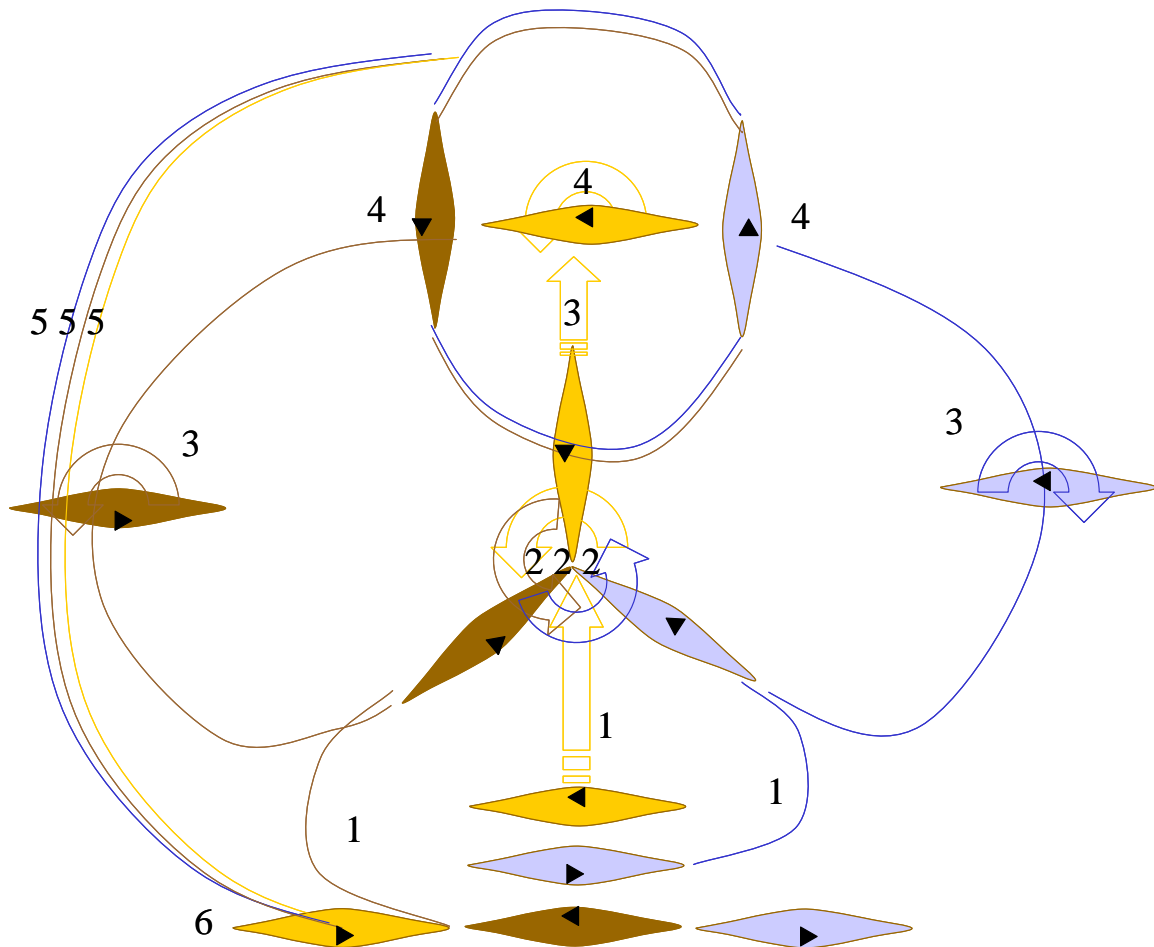
This duet routine would be a sample of a short intermediate synchronized paddling routine.



1. Entry side by side – static start.
2. Inside arc back to dock a canoe length from starting position.
3. Straight line backward 2-3 canoe lengths, stop and inside pivot to face other canoe.
4. Forward until bow close - Inside pivot 2.5 times until facing out.
5. Paddle curved line forward back to dock, last turn into dock a jam (or weight turn).
6. Side slip back to starting position (but switched).

Trio

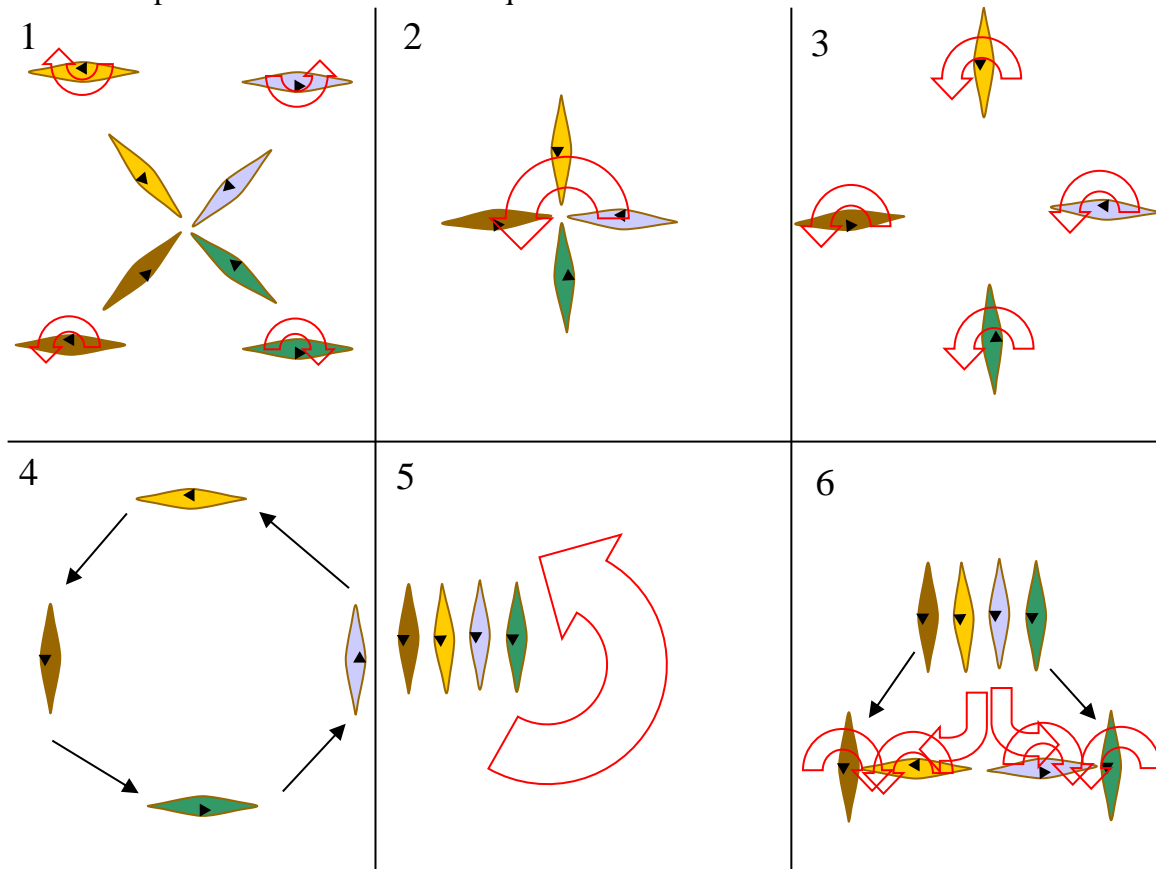
Basic example of a short intermediate trio routine.



1. Starting 'stacked' from the dock or shore. beige canoe line pivots out blue/brown canoes arc out and all come bow to bow.
2. Pinwheel twice toward the paddling side with sculling draw returning back to original positions.
3. Beige canoe line pivots (very short, almost pivot) and continues to pivot. blue and brown canoes back out following an arc with pivot through arc – blue is one pivot, brown is 1.5 so facing opposite directions at end of beige canoe.
4. H pivot –Beige canoe continues to pivot, blue and brown canoes circle at end of beige – one full turn.
5. Blue canoe peels out and follows long arc back to dock followed by brown, then finally beige red.
6. Stop along dock in order facing same direction– blue, brown, (note starting position is shown), beige. Stand and bow....

Quad

Basic example of a short intermediate quad routine.



Paddling on right side.

1. Start at four corners and complete pivot until facing middle. Paddle to middle.
2. Bow pivot one complete revolution. Expand one canoe length out from middle.
3. Pivot same direction until facing counter clockwise.
4. Paddle counter clockwise circle, Inner canoes finish with spiral to align facing same direction.
5. Parallel circle – center canoe pivots.
6. Outer canoes forward side displacement, middle canoes corner out to T. Interlocking pivots to finish.

Resources

Books

- Glaros, Lou, Charlie Wilson, Freestyle Canoeing: Contemporary Paddling Technique, Menasha Ridge Press; 1st edition © March 1, 1994
- Winters, John, The Shape of the Canoe. John Winters (contact Green Valley Boat Works), 2005
- Bryant, Jennifer O. The USDF Guide to Dressage: The Official Guide of the United States Dressage Foundation, Chapter 7 The Training Scale pp 88-96. Storey Publishing, Dec 10, 2012

Videos

- Canoe Paddling – Style <http://www.youtube.com/watch?v=4RJAeP7pDI>
- Canoe Paddling Basics - <http://www.youtube.com/watch?v=lyiWydC8TjA>
- Canoe Exercises - <http://www.youtube.com/watch?v=EpDQaaGBjEk>
- Classic Solo Canoeing – Becky Mason
- Advanced Classic Solo Canoeing – Becky Mason
<http://www.redcanoes.ca/becky/canoe/solopaddling.html>
- Freestyle videos – Mark Maier
<http://www.freestylecanoeing.nl/indexEN.html>
- Kanuballet 2 <http://www.youtube.com/watch?v=aqIZAeUCsm0&feature=related>
- Kanuballet <http://www.youtube.com/watch?v=ncGoZoQDDbY>
- November-Kringeln
http://www.youtube.com/watch?v=8iBW4XPW6eI&feature=channel_video_title
- Paddles in the Stream - An introduction to Advanced Quietwater technique for the solo canoeist - featuring Mark and Becky Molina. Backcountry Productions, 831 Aopine Street Longmont CO 80501, 1998.
- Sculling a canoe <http://www.youtube.com/watch?v=MhrQ8yDnm4>
- Various Solo Manoeuvres and sample routines – Charles Burchill
http://home.cc.umanitoba.ca/~burchil/pm_canoe/routines/

Online

Information Sites

- About Classic Solo Canoeing by Becky Mason
<http://www.redcanoes.ca/becky/canoe/solo.html>
- American Canoe Association Freestyle Committee Newsletter, CrossPost.
<http://www.freestylecanoeing.com/crosspost.html>
- Becky Mason <http://www.redcanoes.ca/becky/canoe/index.html>
- Becky Mason, The English Gate. Canoeroots, Spring 2009, pp22-23.
<http://content.yudu.com/A12y8j/Canoerootsspring09/resources/23.htm>
- Bill Mason <http://www.redcanoes.ca/bill/index.html>,
<http://bkocay.cs.umanitoba.ca/rivers/mason/mason.html>
- Style Paddling – on Kringelfieber <http://www.kringelfieber.de/indexEN.html>
- Canoe Dance by Doug Gifford, © 2009 <http://home.cogeco.ca/~canoedance/index.html>

Intro to Style Paddling:
<http://home.cogeco.ca/~canoedance/downloads/in2Style.pdf>
First Free Trio: <http://home.cogeco.ca/~canoedance/downloads/in2Style.pdf>
Create Freestyle Canoe Program – Mark Molina
http://www.americancanoe.org/resource/resmgr/competition-documents/freestyle_competition_articl.pdf
Freestyle Canoeing - Mark Maier <http://www.freestylecanoeing.nl/indexEN.html>
Free Style Canoeing <http://www.freestylecanoeing.com/>
Functional Freestyle
<http://www.paddling.net/message/showThread.html?fid=advice&tid=1756729#1756767>
Stability Curves - Guillemont Kayaks.
http://www.guillemot-kayaks.com/guillemot/information/kayak_design/kayak_stability
Karen Knight <http://www.bobfoote.com/karen/index.htm>
Omer Stringer Story, CARRYING PLACE Canoe & Boat Works Limited, 2009
<http://www.carryingplacecanoeworks.on.ca/html/omer.html>
Paddling.net FreeStyle Instructional Thread.
<http://www.paddling.net/message/showThread.html?fid=advice&tid=1345070>
Reflections On The Outdoors Naturally, see links under: Canoes and Canoeing: Canoe Ballet/Dance, Freestyle Paddling, Style Paddling (Omering),
<http://reflectionsoutdoors.wordpress.com/>
Rolf and Debra Kraiker <http://www.blazingpaddles.ca/>
Rolf Kraiker, CCR Forum Discussion on Canoe Physics.
<http://www.myccr.com/SectionForums/viewtopic.php?f=20&t=3469>
Shawn Burke, Paddling Styles Primer
http://www.maine canoe symposium.org/Paddling_Styles_Primer.pdf
The Peripatetic Pivot Point – by Clyde Winter
<http://clydewinter.wordpress.com/2006/08/06/ithe-peripatetic-pivot-point/>
The Reluctant Guru – By James Raffin about Omer Stringer.
<http://reflectionsoutdoors.files.wordpress.com/2011/02/37.jpg>
Towards a Taxonomy of Manoeuvre by Michael Ketemer.
<http://home.cogeco.ca/~canoedance/downloads/taxonomy.pdf>
Weighted S-Turns - Charles Burchill
http://home.cc.umanitoba.ca/~burchil/pm_canoe/weight_s.html

Online Forums

The following forms have had style paddling information in the past and may be useful places to start looking for additional information and support.

Canadian Canoe Routes: <http://www.myccr.com/phpbbforum>

Canoeing.com: <http://www.canoeing.com/vb/>

Song of the Paddle: <http://www.songofthepaddle.co.uk/forum/forum.php>

YouTube: <http://www.youtube.com>

paddling.net: <http://www.paddling.net/>

Festivals and Events

Paddle Canada Atlantic Paddling Symposium <http://www.paddlingcanada.com/>

Canotgraphie Festival, Valcartier Loretteville (Qc) <http://www.canotgraphie.com/>

Adirondack FreeStyle Symposium (AFS)

<http://www.freestylecanoeing.com/adirondack.htm>

Florida FreeStyle Symposium (FFS) <http://www.freestylecanoeing.com/florida.html>

Midwest Freestyle Canoe Symposium (MFS)

<http://www.freestylecanoeing.com/midwest.html>

Wisconsin Freestyle Canoe Symposium (WFS)

<http://www.freestylecanoeing.com/wisconsin.html>

Organizations

Paddle Canada <http://www.paddlingcanada.com/>

American Canoe Association (Freestyle canoeing) <http://www.americancanoe.org/>

Instructor Certification

“An instructor once told me that when there's resistance in your body, it's only because of the resistance in your mind.” – Lisa Bonet

How to become an Instructor

In order to become a Style Canoeing instructor you must: 1) obtain a skill level at least one level higher than the level that you will be instructing and 2) complete the instructor level course. To become an Advanced level instructor you must: 1) completed the Advanced instructor level course, 2) have completed the Advanced Style skills course, and 3) demonstrate Style canoeing skills beyond the minimum requirements for the obtaining the Advanced skills course.

Instructor Certification course lengths:

- Style Canoeing Instructor Solo – 4 days* (this is a minimum time)
- Style Canoeing Intermediate Instructor Solo – 2 days (minimum time, candidate must already have necessary skills at demonstration level)
- Style Canoeing Advanced Instructor Solo – 2 days (minimum time, candidate must already have necessary skills at demonstration level)

The Instructor certification courses focus on teaching methodology, correction/detection skills, and class dynamics. Although time is set aside to assess the paddling skills at the appropriate level teaching those skills will not be the primary focus of the course. Candidates entering an instructor course should be able to demonstrate the majority of skills at a level appropriate for instruction.

At each level instructor candidates must instruct: 1) how to complete at least one core skill and manoeuvre, including appropriate detection and correction techniques, 2) develop at least one theory component appropriate for the level, 3) provide a rough outline of a complete course at the appropriate level. At the Intermediate or Advanced level candidates must also show how to develop, document, and choreograph a basic routine. Teaching sessions must be accompanied by a complete lesson plan including alternative teaching methods, background information, and appropriate resources.

If you already have instructor certification in any another paddling discipline (e.g. Solo Lake Instructor) and have completed the Advanced Solo Lake or Intermediate Style canoeing skills course you can apply to the Paddle Canada Program Development Committee to be granted the Introductory Style Instructor status. You do not have to take another introductory instructor course but you must demonstrate appropriate skills and understanding of the Style Program to the satisfaction of the PDC.

* The time frame is longer for the introductory level to allow for time to cover instruction techniques, class management, course design, etc...

How to become an Instructor Trainer

In order to become an instructor trainer you must have: 1) the corresponding instructor level, 2) have run a minimum of two courses at that level, 3) apprenticed on two instructor courses (at least one of those at the same level being sought) or provided significant input into curriculum development, and 4) have a recommendation from an instructor trainer (i.e. from the IT on the apprenticeship course) sent to the Paddle Canada Program Development Committee.

Assistant and Apprenticeship Information

These follow the same guidelines for the other Paddle Canada paddling disciplines.

Assistants

- Individuals that are called upon to assist Instructors running a skills course or Instructor course
- Individuals would have, at the most, one level below Instructor status
- Assistants can increase the participant numbers by 2
- Courses may have more than one assistant but the participant numbers can only be raised by 2
- Assistants cannot use this process to achieve a higher level of certification
- Assistants are not evaluated on these courses

Apprentice and Mentorship

- Individuals that have requested a higher level of certification
- Individuals that instruct (approx. 50% of the time) in the instruction of an Instructor Course
- There is a maximum of 2 apprentices for Instructor Courses
- Apprentice and/or Mentorship can increase participant numbers by only 2
- Apprentice and/or Mentorship must be monitored and evaluated by the Instructor Trainer on the course

Instructors must utilize their professional judgment and alter a course appropriately when conditions dictate. Instructors are expected to stay abreast of new developments in the profession and utilize such information to improve their instruction.

*“Tell me and I will forget,
Show me and I will learn,
Involve me and I will understand” –
Teton Lakota (traditional saying)*

Skills and Manoeuvre Summary

Name:		Course:	
Date:		Course ID:	
	Course Level – Style Canoeing		
	Introduction	Intermediate	Advanced
Core Skills	Pivot (2m, n/a, n/a) (three revolutions, both directions) Forward line (<2m, 25m, 20°) Reverse line (<2m, 25m, 20°) Onside Displacement, with corner (<1m, 10m, 20°) Offside Displacement, with corner (<1m, 10m, 20°) Inside Circle (<2m, 5m radial, 20°) Outside Circle (<2m, 5m radial, 20°) Inside Turn (<2m, 3m, 90°) Include stop turn. Outside Turn (<2m, 3m, 90°) Include stop turn. Inside Pivot Turn (<2m, 3m, 90°) Outside Pivot Turn (<2m, 3m, 90°) Inside U Pivot Turn (<2m, 3m, 180°) Outside U Pivot Turn (<2m, 3m, 180°) Inside Weight Turn Outside Weight Turn Controlled sit (0, 0, 0°) Reverse weight turn (attempted) Launch/Entry Land/Exit Lift/Carry	All Intro core skills with half corridor an yaw (e.g. forward line (1m, 25m, 10°)) Reverse inside circle (<2m, 5m radial, 20°) Reverse outside circle (<2m, 5m radial, 20°) Reverse Inside Turn (<2m, 3m, 90°) Include pivot, U, stop turns Reverse Outside Turn (<2m, 3m, 90°) Include pivot, U, stop turns Inside/outside Weight turn controlled (<3m, 3m, 90°) Outside weight turn controlled (<3m, 3m, 90°) Off side weight shift forward (cross strokes) Offside weight shift rearward (cross strokes) Onside running side slip (2m to side, over 4m forward, 20°) Offside running side slip (2m to side, over 4m forward, 20°) Connected circles (<2m, 5m radial, 20°) Weight shift Onside Displacement with inside corner Offside Displacement with inside corner Reverse inside/outside weight turns	All Intro and Intermediate core skills with half [again] corridor and yaw (e.g. forward line (0.5m, 25m, 5°)) Inside reverse weight turn controlled (<3m, 3m, 90°) Outside reverse weight turn controlled (<3m, 3m, 90°) Reverse onside running side slip (2m to side, over 4m forward, 20°) Reverse offside running side slip (2m to side, over 4m forward, 20°) Reverse connected circles (<2m, 5m radial, 20°) English Gate (or equiv)
Stokes <i>Although these are taught within each level they are not part of the testing of skills or manoeuvres.</i>	Forward Reverse J Canadian C Rolling J Reverse Rolling J Forward sweep, partial/full/surface Reverse sweep, partial/full/surface Draw Push Sculling Draw Sculling Push Running draw (turns) Running pry (turns) Box (inside pivot) Box (outside pivot)	Off side forward Off side draw Off side push away Running off side draw (turn) Reverse rolling J Circle (inside pivot) Circle (outside pivot) Running draw (side slip) Running pry (side slip) Reverse running draw (turns) Reverse running pry (turns) Stroke blending/combination strokes	Reverse running draw (side slip) Reverse running pry (side slip) Stroke blending to complete routines

Manoeuvres (Examples – expand based on interest within the difficulty for the level)	See Core Skills	Core skills in open water Line pivot Pinwheel (bow) 45 degree line 'Flip' turn Spiral to pivot	Core skills in open water Displaced circles Arc/Circle line pivots Spiral to pivot (reverse) American Freestyle (forward/reverse onside quarter, explore offside quarters) Axle Christie Wedge Post
Routines	N/A May do basic formations and synchronized skills	4-6 Manoeuvres, synchronized paddling Interlocking pivots H formations/pivots	6+ manoeuvres Parallel routines (within 1m) Pivots/inline routines (within 0.5m) Synchronized paddling
Theory	Boat types Influence of Omer Stringer, Bill Mason, Becky, etc.... Equipment (e.g. kneeling pads) Canoe Dynamics Edging Trim Stroke Dynamics (pitch/placement/torque) Static/Dynamic Basic body position Kneeling Face	Paddle shapes – effect on body position, paddling style Communication (in routines) Choreography Basics of synchronized paddling Style skills in other disciplines Intermediate body position – face, rotation, kneeling	Influence on/of American Freestyle Dynamic and static strokes – purpose distinction – specifically related to A. Freestyle Style Paddling competitions Advanced synchronized paddling Advanced body position Advanced choreography
Safety/Rescue	Required safety equipment (pfd, bailer, etc...) Canoe over Canoe/parallel rescue Swim with canoe (15m) Deep water re-entry, Self-rescue Optional deep water self-rescue (shake out/C. flip)	Review introductory material	Review introductory material

Although each level appears to have fewer skills recall that every level requires the skills/manoeuvres from the earlier level to be completed at a higher level of precision. Each level also adds more complex and difficult manoeuvres and routines.

Example Course Outlines and Material

A few course/clinic outlines have been provided as part of the manual to give some indication or support on developing and presenting the Style courses.

A Style Clinic

There are often people interested in learning a little Style paddling but can not dedicate the time required to complete a full course. This outline provides a sample of a short clinic or workshop that could be used to spark some interest or answer some questions. Short clinics should focus on manoeuvres or short routines and contain those items that have the most 'WOW' factor for the level of difficulty. The following manoeuvres and order are thought to provide a useful introduction to obtainable skills – this clinic could be registered with Paddle Canada as an Introductory Style course with 'Clinic' checked since it does not contain all of the required elements.

There should be a prerequisite that participants have some solo experience (such as Intro Lake Solo).

The time frame for this clinic would be an afternoon or evening period of roughly two (2) hours. This should provide adequate time for experimentation, questions, and some critique of skills. There is no criteria assessment (length/corridor/yaw) and the focus should be on – 'hey this is cool' and 'that was easy'. All of the manoeuvres are associated with forward movement since reverse skills are more complex.

Manoeuvres:

- Forward line
- Weight turns
- Turns (with static strokes - similar to American Freestyle)
- Pivots
- Side displacement (sculling)

Strokes

- J/Canadian/C
- Running draw/pry - turns
- Possibly a jam
- Sweep (including surface sweep but reverse only)
- Sculling (draw/pry)
- Box (maybe)

Theory

- What is Style canoeing (Canadian/American) and what is the point?
- Required equipment (PFD, etc...)
- Heel (why?) kneeling position
- PC courses - Lake/Style in particular

Order of clinic, difficulty level, and rationale.

Start off with a little land based discussion on what Style canoeing is – Canadian/American. Remind people about legal requirements – they don't go away just because you are doing stylized canoeing.

Hop in the boat for a 60 second demo – this is the point to talk about where to sit and heel – including why.

Forward Line: A forward line will be covered as participants get into the canoe and out onto the water. Really this is here to see if people can actually paddle solo or if additional instruction is required. If people are having problems getting going try shifting weight back and ensure the paddle is perpendicular – adjust sitting position so grip hand is outside of the canoe. Moving back usually solves most problems but then makes it turns harder. Play about a little...

Once people are going introduce weight turns; talk about the tendency for a canoe to turn by itself. Demo – paddle forward and pull the paddle out just to see what happens. Have them try it out and see where the canoe goes – can anyone explain what is happening. Suggestions on control? Weight turns are done early in the clinic because they are really instructive about how the canoe moves and if you don't worry about direction they are kind of fun to do. Talk about momentum, initiation and follow through.

Have people adjust their weight forward a little – see what happens. Add heel, remove it...

Now that turning the canoe using momentum is figured out try encouraging the turn with the paddle – sweeping brace, running draw, sweep, or running pry. Demo this and then go and try – the paddle allows some control over the turn. My suggestion is to limit strokes to running draw/pry turns providing an easy transition to American Freestyle. Demo a jam or running pry – see what happens, have them try it out. Show a one handed jam just for fun.

Now that turns are working really well take the next step and try out pivots. Start with a forward sweep (outside pivot), choke up, lots of heel, far from the pivot point. Point out that the sweep does not need to be full (in actual fact it is more difficult) but short sweeps anywhere around the arc. Once that works try out a box (push/pry) stroke, again the push is far from the pivot point and deep. Pivots are usually taught earlier in full length courses but they can be frustrating to complete.

Side displacement is left to last since it provides the least 'WOW' factor for the time commitment.

Put it all together – do a called routine. Charge, turns, pivots ... Have fun.

Skills for Clinics

At each level there are a set of skills and transitions that are relatively easy to learn with a high degree of success and provide significant visual feedback. These are generally skills that are suitable for use during clinics. The expectation for people attending clinics is that they should have reasonable solo skills – if they are starting from scratch consider running a Lake Solo clinic instead.

Introductory

- Inside or outside weight turns – initiated with paddling stroke
- Inside stop turns
- Interlocking pivots
- One handed pry (turn)
- Forward running draw

Intermediate

- Weight turns with some control & reverse weight turn
- H/I formations (in particular with inside circle)
- Reverse turn (stop turns)
- Bow pivot (pinwheel)
- Forward parallel routines
- Forward running pry

Advanced

- Axle, Post
- Wedge
- Mirrored routines (circles, turns)
- ‘Flip turns’

An Introductory Style Canoeing Course

The following is an outline of the Introductory Style course including requirements and notes to remember. Individual instructors are encouraged to develop their own curriculum that meets the identified criteria and fits the location and students involved.

The course will be run over 4 weeks, one session each week for 2-3 hours/session. The students must have some prior solo experience. Launch/removal and carries will be commented on as needed but not covered specifically.

The location is a small sheltered bay with little wind, warm water and weather. Students have been asked to bring water (lunch), change of clothing, kneeling pad/stuff sack/beach towel. Why has been explained on the phone on in an email prior to the course starting. Confirm ahead of time if people are bringing own equipment, let them know the requirements.

The following equipment is supplied: canoes, otter tail paddles, appropriate safety equip (bailers, PFD, first aid, whistles, etc...).

Each day has a primary focus but other items will come up at that time as well. There will be a short review on days 2-4 of the previously covered skills – usually as part of the warm-up.

Day 1. Introductions – Forward lines, Pivot, rescue

Introductions

Myself and background

Each student – include interest in Style canoeing

Provide goal of course and expectations, length of course.

Goals for today

What is Style canoeing – compare to YouTube “Style” canoeing which is mostly American Freestyle. Why would anyone want to do Style canoeing?

Review

Required equipment (regulations – pfd, paddle, whistle, bailer, etc...)

Expectation is kneeling in the boat

how to make things easier – towel under ankles, kneeling pad (large for movement), Sit on barrel, large stuff sack (sleeping bag), kneeling thwart (note limitation on movement), keep moving, warm-up, etc...

Solo position

middle of boat, heel – explain why, provide demo with short routine (1minute includes manoeuvres covered in this course plus some extra’s)

Warm up, arm swings, run on spot, touch toes,, light stretches

Into the boats.

Quick lines and pivot – go out and come back – see where everyone is at...

Comment on any common issues.

Forward line

Starts – C, rolling J, deep paddle blade, hand/body placement.

Remove heel, level canoe, move back slightly.

Try.....

Stops – Basic back paddle, tap canoe, be patient – kill momentum from back.. Try compound back.

Try.....

Repeat..... Correction, detection,

Have them paddle in line then pull paddle out to see what canoe does a few times (don't call it weight turns just see what happens). How does changing heel and weight in boat (trim) change things?

Pivots.

Have them go out and try (did this earlier but again).

Comment on how it was done, importance of heeling canoe – why.

Position in boat (pivot points and torque).

Outside pivot.

Box (basic draw/push).

Try Correction/Detection, common problems.

Sweep – far away, choke up,

Try ... correction/detection – why more difficult.

Inside pivot

Try (just in reverse)

Box stroke

Try..... correction common problems

Try both, change places (esp. heel) to see what happens

Go out and come back – nice line, pivot, each end go out come back. Do this in star pattern with instructor in the middle. Have everyone go out and pivot and come back at the same time (their first group routine)

Rescues

Have everyone tip their canoe and swim it to shore, empty and get back in.

Solo canoe over canoe or parallel rescue. Have everyone be victim and rescuer. Support can be given but remember this is a solo course.

An activity at this level is having students attempt to dip the gunwale under the water surface and sink the canoe slowly without tipping.

Dry off, reminder about practice during the week – for every hour in a course there should be 2-3 hours minimum practice time before the next class (next week).

Provide the summary sheet with all of the course requirements at each level.

Day 2. Circles, Side displacement

Goals for today – circles, side movement

Who was Omer Stringer anyway and where he fits with Style Canoeing.

Warm up -

To the boats.

Review from last week (warm up).

Circles – start with inside circle.

Give it a try... ☺

Draw/J – reverse of C stroke, placement of blade/paddle
How does weight placement change ease of circle. Heel, trim.
Try correction, checking

Outside

Give it a try

Sweep???? to much, wash out – how do you think weight/trim make easier.
forward with J, weight back, heel reduced,

Give it a try

Paddle in circle – synchronized – ½ way stop (see last week) pivot go ½ back and pivot.
Have one student move to middle and try to pivot. Others paddle in circle around just out side of length of canoe.

How does the boat shape work, trim, heel, and rocker. Think about initiation, paddle placement, heel – explain each and how it might affect what we have learned.

Side Displacement –

Onside.

basic draw, control, rocking.

Try.....

Body rotation, placement?

Sculling draw – why different.

Try.... correction – comment on paddle placement, choke up, distance above/below water. Remember this is style canoeing little visible movement but want lot of blade movement.

Away

Basic push, control, placement, rocking - why not pry?

Try.....

Recap body placement. Can the push be moved forward backward

Sculling pry.

Try..... correction.

Conversation of torque – how it applies to forward lines, pivots, circles, side displacement. Talk about off set draw/pry.

Paddle length – shorter/longer benefits and drawbacks. Blade size/shape.

Paddle routine – forward, stop, sideways, pivot, forward – follow each other.

Day 3. Turns (weight turns), weight movement

Goals for today – turns and weight turns.

who was Bill Mason (& Becky) anyway and where they fit.

Warm up -

Turns are 90 degrees, both continue and stop. Introduction of static strokes.

Inside

Static draw (forward)

Try.....

Back sweep (used for stopping)

Try.....

Outside

Sweep (how to stop?) used for continue.

Try..... Try doing a sweep but just sit and see what happens.
Weight shift – forward/Backward – how does this change.
Sweep with static draw (from rear) used for stopping
Jam (weight shift and body/paddle placement) used for stopping (deep water).
Try..... Move jam forward backward. Try weight shift – sometimes you don't turn but go side ways....hmmmmm what is happening.

Weight turns

Already started this when we tried paddling forward and pulling the paddle out.

What these are - demo

Try..... Don't worry about control just direction.

Provides an understanding of how canoe will move. Revisit initiation, momentum.

On side, offside

Try.....

Control – weight shift forward, backward, heel (more/less).

Day 4. Reverse, Putting it together, Alternatives

Goals for the day – Reverse is really important – circles, lines, etc... in the end everything that you do forward you should be able to do in reverse.

Warm up.

Lines, circles, side, turns.

Review – lines, pivots, turns, side disp, circles

Correction and checking on existing.

Reverse

Starting – reverse C, rolling backward J

Try.....

Backward J – keep 'push' in front of your body when moving.

Weight position (think of where you were going forward).

Reverse weight turns

A really big part of the style canoe is blending things together. To this point everything has been covered separately. Try to bring side displacement and forward motion together.

Go out – try and have fun... see what works....

Since solo canoeing involves kneeling close to the water, and in the case of style canoeing the canoe is heeled the shaft length of the paddle is typically short. The blade length is often longer allowing you to catch a lot of water far from the pivot point and/or deep under the canoe. Because the blade is long it is often difficult to complete out of water strokes smoothly – try doing all of the strokes and manoeuvres that you have learned without taking the paddle blade out of the water – use in water recovery and rolling strokes.

Look at some alternative strokes and stroke blending for what we have done already

How skills can complement other paddling disciplines

Try some synchronized paddling – interlocking pivots, circles, circles around pivot.

If there are problems, check length and corridors (test if you will).

Windup – feedback to/from students and evaluations, where things go from here.

Where courses go from here – intermediate, advanced, American freestyle, Lake, Moving water, tripping, ...

Remember for every hour in a course there should be 2-3 hours minimum practice time.

A short (2 minutes) routine may take several hours to develop and perfect.

An Intermediate Style Canoeing Course

Four Evenings - 2 hours each evening (6:30-8:30), small narrow protected river, no current or wind.

Introduction/Expectations

Introduce yourself and background.

Have students introduce themselves, background, expectations/hopes.

Style Canoeing - what is it

What to take away

Most important is the feel, not the exactness.

When trying manoeuvres think of alternatives, multiple ways to approach the same movement. Body position, paddling, etc... Paddling on both sides is required but only most proficient will be assessed.

What will be covered

1. basic reviews/reminders/extension, 2. mostly reverse
3. combination (short routines) & choreography, 4. Sync paddling, practice, corridors, demo,.

Many core skills can be practiced with buoys but get the feeling in open water as soon as possible. Most of this course will be done in open water - if there are specific grounding issues we might pull them out. It is important to understand the skills without focusing on markers and buoys and then once the skill is 'mastered' then practice and assess using markers.

There is some homework - the last day each participant will have a chance to do a short demonstration of skills using a routine of their own development. These may be individual or group routines. The expectation is that for every hour on the water you should practice an additional two hours. Expect the final demo to take at least a couple of hours to perfect.

Order of course

Demo of basic intermediate routine by instructor – 1.5-2minutes.

1. Basics review

- pivots - box, sweeps, circle, high kneel, low kneel,
Explain depth of canoe (stuck) point
changes with body position (forward/rearward/heel)
Interlocking pivots
- side displacement - onside heel, offside heel
 - with turn/corner
 - draw/pry, sculling, how to turn.

- angled
- line pivot (intro)
- Circles - inside, outside (try outside but off side strokes)
 - weight forward
 - explain boat shape
 - pull front around, push back around
 - quick lines - palm roll, switching power face
- weight turns - both ways
 - with control
 - what is the point?
 - initiation, momentum, edge, hold
 - S-Turn?
- stops
 - Compound, standard, other
- intro to controlled turns if time - use weight turn
 - standing draw, pry
 - surface sweep
 - back draw
 - hard J
 - Paddle out/U turn
 - Paddle through
- Complete with some basic formation and synchronized paddling of skills.

2. Basics continues

- Controlled turns
 - include one handed jam.
- Running side slips
 - Standing draw/pry
 - active strokes, rolling strokes
- Reverse
 - lines - reverse J, Indian, etc...
 - weight turns - un controlled but used to assist with turns.
 - turns - standing draw/pry
 - circles – inside/outside
- Complete with basic synchronized paddling and routine development thoughts.

3. Combination

- line pivots (palm rolls)
- pinwheel
- flip turn
- diagonal line
- connected circles

- Choreography - introduction

- transitions

- connected circles
- sine route (forward/backward/sideways)
- displaced circles (squares)

- Basic synchronized paddling
 - H/T pivots/circles
 - Interlocking pivots
 - Reflected manoeuvres (in particular turns/stop turns)
 - Head-to-Head pivots
 - Sine wave paddling
 - Parallel lines

- Routine development – time to discuss what is of interest and develop plan.

4. Finish up

- Catch up

- Corridor assessment (if necessary)
 - Lines (F/R) with stops (1m 25m)
 - Pivots (1m)
 - Turn inside/outside - continue (F/R) (1m 5m 90)
 - Turn inside/outside - stop (F/R) (1m 5m 90)
 - Connected circle (2m 5m radial)

- Practice routines, continue to develop

- Demonstrations

Minimum Required Safety Equipment

Many Style canoeists are reluctant to have safety equipment in the boat when paddling because they feel it can get in the way. All Paddle Canada courses require the regulated safety equipment to be in the boat and participants must wear approved PFDs at all times while on the water.

The following items are required in Canoes, Kayaks, Rowboats and Rowing Shells (not over 6m in length):

Personal Lifesaving Appliances

- One Canadian-approved personal flotation device or lifejacket of appropriate size for each person on board. These must be worn on a guided excursion. Must be inherently buoyant for white-water and under age 16
- One buoyant heaving line of not less than 15 m in length.
- During a guided excursion when on class 3 or above waters, a helmet of an appropriate size must be worn.

Vessel Safety Equipment

- One bailer - bailers must hold at least 750 ml, have an opening of at least 65 cm² (10 in²) and be made of plastic or metal, or one manual water pump fitted with or accompanied by sufficient hose to enable a person using the pump to pump water from the bilge of the vessel over the side of the vessel.

Navigation Equipment & Visual Signals

- A sound-signalling device such as a pealess whistle.
- One magnetic compass - Canoes or Kayaks less than 8m in length and within sight of navigation marks do not require a compass.
- Navigation lights that meet the applicable standards set out in the Collision Regulations – a waterproof flash light is suitable in a canoe or kayak if operated after sunset and before sunrise or in periods of restricted visibility
- One radar reflector. A radar reflector is not required if the boat operates in limited traffic conditions, daylight and favourable environmental conditions, and where having a radar reflector is not essential to the boat's safety

First Aid

- Instructors, Guides, and Leaders on guided excursions or with passengers are required to carry: A First Aid Kit (meeting regulations) packed in a water proof container. If water is less than 15°C then equipment or procedures must be in place to protect participants from hypothermia or cold shock.

Other

- Instructors, Guides, and Leaders on guided excursions or with passengers must provide a float plan along with the number of participants to a designated person on shore. A safety briefing must be conducted at the start of a course or outing providing an overview safety and emergency procedures.

Adapted from: Canadian Shipping Act Small Vessel Regulation (SOR/2010-91)
Refer to official regulations for complete and up to date information

A Final Thought

“I paddle a canoe as a past-time. Beyond the simple mechanics of paddling is the actual dance of the canoe. We create the sheer poetry of motion by making a rhythm or even music with the canoe; literally making the canoe dance. Just as there are no wrong notes in making music (at least in the purest sense), even if we don’t know the exact correct paddle strokes, we can move that canoe, creating our own poetry or dance. As we become more proficient in paddling we can create a more intricate dance. But when we come to add emotion to our paddling, we create a vision. Then that canoe dance almost seems to take on a life of its own. It is more than just mere paddling...almost as if that canoe becomes an extension of ourselves. Freeing ourselves. And the canoe is the vehicle or instrument to such freedom. The freedom found in making beautiful music together with my canoe.” – Mike Ormsby