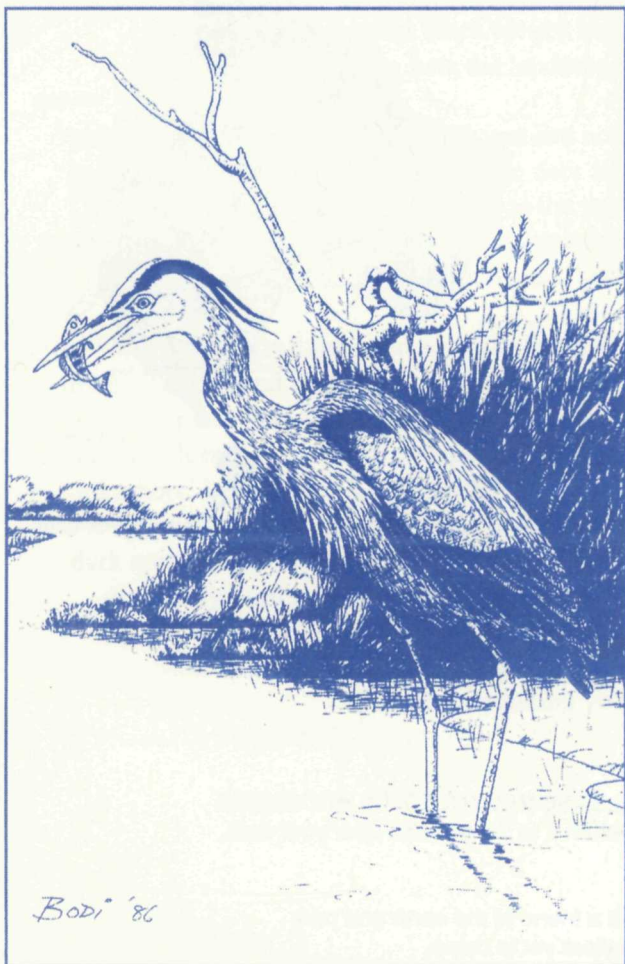




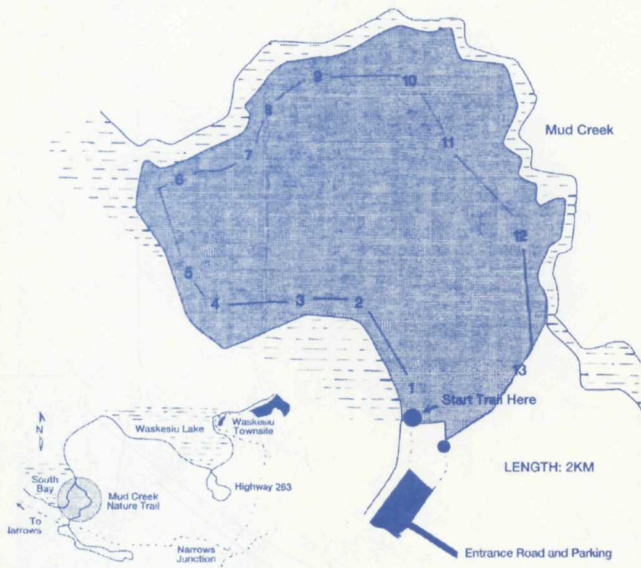
Mud Creek

SELF-GUIDING NATURE TRAIL
PRINCE ALBERT NATIONAL PARK



What I aim to do is not so much learn the names of the shreds of creation that flourish in this valley, but to keep myself open to their meanings which is to try to impress myself at all times with the fullest possible force of their very reality.

Annie Dillard, Pilgrim at Tinker Creek



TRAILHEAD

Welcome to Mud Creek Nature Trail

MEETING PLACE

One hundred kilometres to the south, aspen woods mingle with wheat fields. One hundred kilometres to the north, black spruce bogs dominate the landscape.

Within Prince Albert National Park, you can hear both coyotes and wolves howl, see deer and caribou, badgers and wolverines, as the park witnesses the gradual change from southern aspen parkland to northern spruce hinterland.

Mud Creek Trail introduces you to these two diverse worlds and invites you to experience this meeting place. The walk takes about an hour on an easy, level two kilometre loop trail along the lakeshore, beside Mud Creek, past beaver dams and lodges and through sun-filled aspen stands and dark spruce wood. Sighting wildlife is common, especially during early morning and evening.

Slow down and open up to the sights and sounds surrounding you.

PLEASE RECYCLE THIS BROCHURE

Return it to the trail box after your walk.

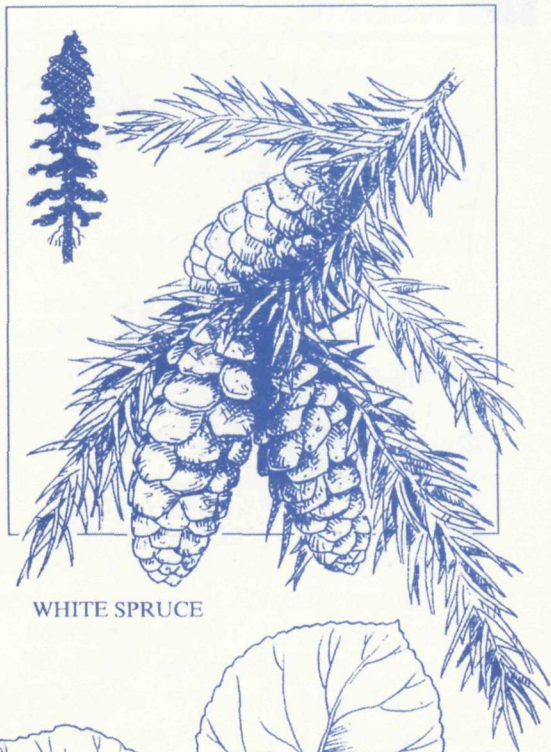
Be a friend to the earth and park visitors yet to come.



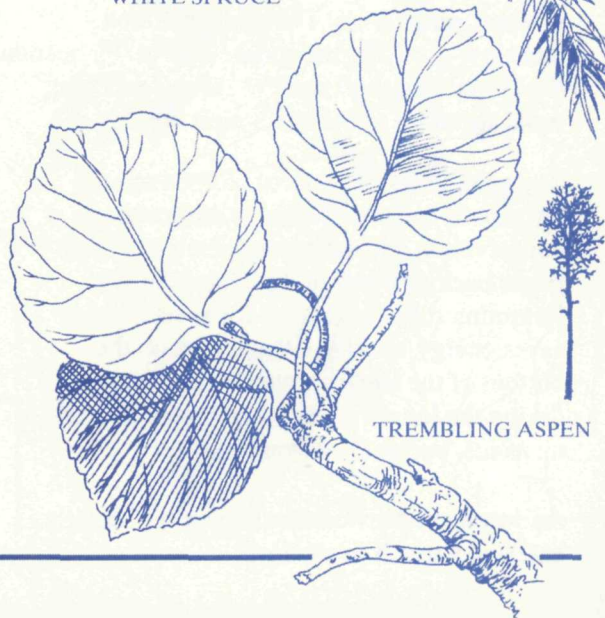
Standing here 12,000 years ago, you would have faced a mass of ice a mile high, stretching northward to the arctic. Rocks and rubble would have surrounded you, forced on a one-way journey encased in ice, then abandoned where the ice melted.

The present landscape is a legacy of these icy forces. The random depositing of rocks and sand resulted in different soils and drainage patterns being found close together. Today's forests reflect these soil and drainage patterns, helping to explain why different forest types are found side by side. This patchwork quilt effect is most evident from the air, but can be seen and experienced on the ground as well.

Look left across the bay. There, light green trembling aspen cover well-drained south-facing slopes. To the right, dark green spruce cover a north-facing rock-filled point. One reflects southern tones, the other northern. Look for similar abrupt changes along the trail, a feature typical of this glaciated landscape.



WHITE SPRUCE



TREMBLING ASPEN

The wet lowland before you is reminiscent of the extensive sphagnum spruce bogs found throughout northern Canada. Considered wastelands by many, these are fascinating places where only the hardiest plants can eke out an existence.

The ridge, formed along the lakeshore during spring break-ups, has blocked the drainage of this lowland area. Standing water stagnates, becoming acidic, as dead needles from the coniferous trees accumulate and decay.

While unable to compete with other trees in drier conditions, club-topped black spruce and feathery tamarack are adapted to these wet and acidic soils. Though long-lived and slow-growing, the spruce eventually become top heavy, and their shallow, wide-spreading roots succumb to the north-west winds.

The acidic soil and lack of oxygen reduce the rate of decomposition, making energy conservation adaptations imperative. A few paces back grows foot-high labrador tea. Retaining the same leaves for several years saves energy, and the orange fuzz on the bottom of the leaves prevents desiccation during the long winters when water, locked up as ice, becomes unavailable.

As you leave the boardwalk, you will be entering a world in shadow.



Look back into the trees at the forest floor.
What do you see?

A few plants hugging the ground.

Dead leaves.

Nothing else.

What's missing?

Light.

Compared to an aspen stand, a white spruce forest is indeed dark. Many plants cannot grow here because of the lack of light and the acidic soil caused by the spruce needles which cover the forest floor. Wildlife is also scarcer. The bitter-tasting needles discourage browsers such as deer and moose, and food in general is less plentiful.

Spruce cones are abundant though, and here the red squirrel makes a successful home. The chattering you hear is not a friendly hello, but an alarm call, warning that you have entered a squirrel's territory. Active year-round, through the winter months the squirrel must depend for food upon the cache of cones which it collects and stores underground in the fall. It therefore diligently defends its territory at all times, primarily against other invading squirrels. What may appear as a playful game of tag is more likely a serious contest. Look for signs of these noisy tree-dwellers as you walk along.



RED SQUIRREL

This rocky promontory takes the brunt of the north's cold winds, and even in summer the breeze is often cool. Here, one experiences the feeling of being in the north.

Lakes such as Waskesiu are typical of the north - large basins gouged out during the glaciers' descent. The water is clear and cold, supporting pike, pickerel and whitefish in its depths while eagles soar overhead. A loon's haunting cry echoes across the horizons beyond - you are indeed on the edge of a vast wilderness.

An aspen forest is overrun with life. Light floods the forest floor, giving the woods an open airy feeling. Everything is green.

Pick up a trembling aspen leaf.
Twirl the stem in your fingers.
Unlike most leaves, the stem is flat,
not round; difficult to roll.
The flat stem causes the leaf to
flutter in the slightest breeze - hence
the name trembling aspen. The almost
constant motion of the leaves means
more light reaches the forest floor.

Twinflower and pink pyrola carpet the
ground. The forest provides an abundance of
food and shelter for animals. Look for
evidence of moose and deer browsing on
the red osier dogwood along the trail.



TWINFLOWERS

- pinkish white flowers 3 mm



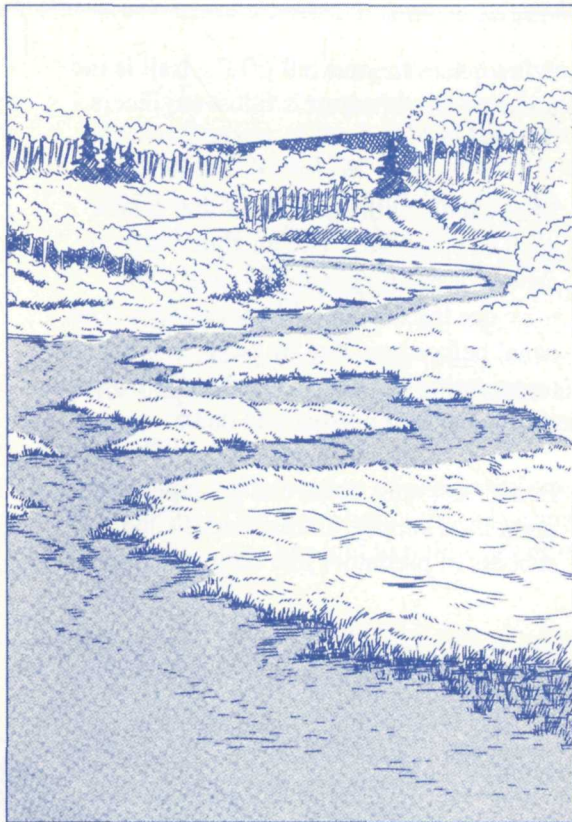
MOOSE BROWSING ON RED OSIER DOGWOOD

THROUGH DIFFERENT EYES

More than forest can meet. Here two worlds converge where Mud Creek empties into Waskesiu Lake. The lake is a harsh environment of battering winds and wave-churned sand, which prevents plants from taking hold along its shoreline. In contrast, the slow-flowing creek offers safe harbor for plants and animals alike.

This is also a meeting place of past and present. One hundred metres from the creek is the site of a prehistoric native encampment, used seasonally by small native groups. Artifacts excavated in the 1970's indicate that hunting, fishing and gathering were all successful along the creek.

Today, though we no longer consume the creek's resources, we can appreciate their richness in more intangible ways.



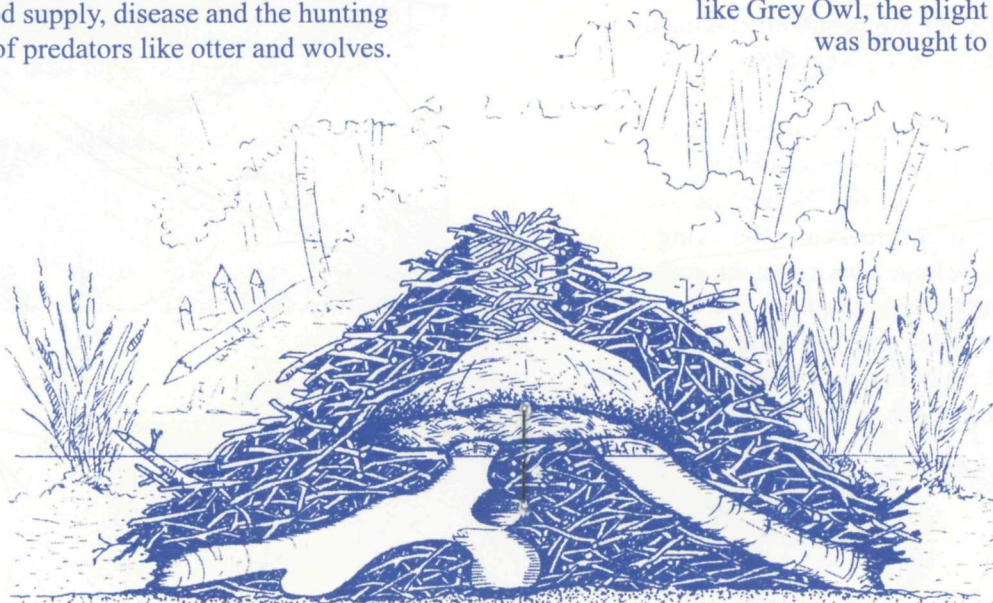
A few paces to your left off the trail is the home of one of nature's finest engineers - the beaver.

Mud Creek, with succulent water plants such as pond lilies, and an abundance of aspen for building materials and food, provides the beaver's life necessities. The canal before you, dug by beavers, eases the transporting of branches and twigs from the woods out to the lodge and dams.

Beaver colonies come and go depending upon food supply, disease and the hunting success of predators like otter and wolves.

The beaver's fortunes have not always been dictated by purely natural forces. Across Canada, at the height of fur trading competition from 1780-1821, beaver were trapped almost to extinction for their fur, to supply European fashion demands. Even after the beaver trade slackened, trapping of other fur-bearers continued. From 1890-1920, the Freight Trail, located one kilometre south, was a major transport route for supplies heading north to LaRonge and furs south to Prince Albert.

Through the dedication of conservationists like Grey Owl, the plight of these animals was brought to public attention.



CROSS SECTION OF BEAVER LODGE

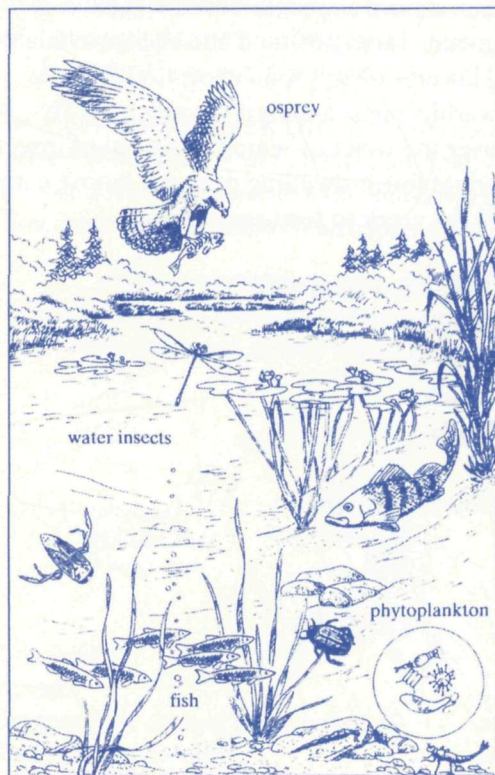
Everything is becoming something else - nothing stays the same. Not only do things change as you move from place to place, but each individual forest is constantly changing as well.

Before you as aspen forest is slowly being transformed into a spruce forest. Aspen grows well in direct sunlight and colonizes areas quickly after a disturbance such as cutting or fire. These adult aspen, sometimes called 'nurse trees', now provide the shade under which white spruce can thrive. Mixed stands like this one are common, making up about 15% of the park's total area.

In another 40 to 60 years this forest may be predominantly white spruce as the shorter-lived aspen die out. Nothing is wasted. The nutrients locked in the living aspen are then released back into the soil, as bacteria and fungi break down the wood. A forest is not static and, in a national park, the process of natural change continues unhindered.

Mud Creek teems with life above and below the surface where the old game of eat or be eaten is continually played out.

Microscopic floating plants (phytoplankton) feed tiny animals (zooplankton) which feed insects eaten in turn by fish, which a passing osprey may capture in its deadly talons.



WEB OF LIFE

Pond lilies and milfoil grow profusely in the rich, muddy bottom and become a succulent meal for moose and beaver which may in turn fall prey to wolves. And so it goes. Every living thing is dependent upon another for its survival.

Along the edge, wherever two habitats meet, life is more abundant because there is a greater variety of food and shelter available. This creek bank is no exception. Yellow warblers nest amongst the alder, yet fly over the water in search of a meal of insects, while forest-dwelling deer and moose come to the creek to feed and drink.

Take a few moments.
Sit quietly.
Wait.
Watch.
Listen.

Enjoy the show.

Listen, the trees are beckoning
Shimmering leaves
Green on blue
Bold white trunks
Reaching skyward

Do you feel it? In the last few minutes you have passed from a spruce forest, through mixed stands to trembling aspen woods and in doing so, have passed an imaginary boundary between the north and south.

The moss-covered forest floors and sombre tones of the spruce woods have gradually been replaced by colourful, sun-loving wild-flowers and the airiness of an aspen stand.

As you continue on, you will feel this southern influence more and more as hazelnut and open, grassy banks appear.

BEAKED
HAZELNUT
• nuts 1-2 cm



Step off the trail.
Look around.

Compare the feeling here to that of
the rocky promontory.

Welcome to the south.

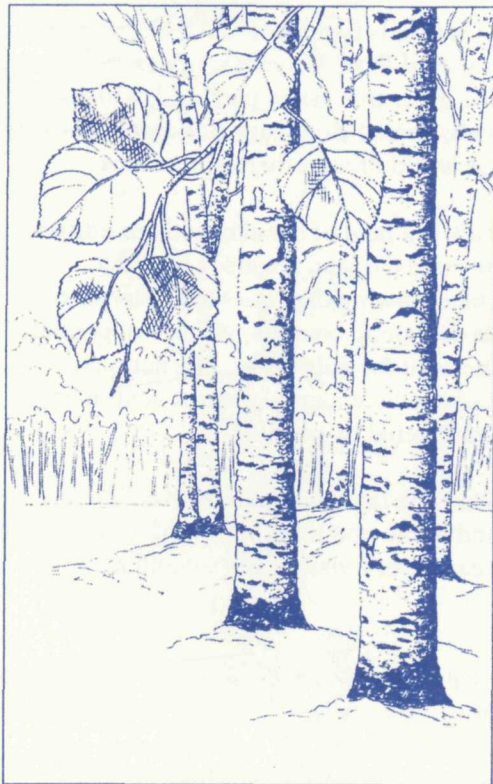
Have you noticed the bark on
the trembling aspen?
One side is white,
the other light green.
Rub the white side with your finger.
White.
Like chalk.

The white bloom may act as a protective mechanism. In early spring, dramatic daily temperature fluctuations occur when the days are warm but the nights are still below freezing. The warm sun on the aspen stimulates the rise of sap from the roots. If it flows too early, the sap freezes at night and bursts the living cells, injuring the tree.

Look at the tree again. The white bloom appears in spring where the tree receives the most sunlight - on the south and south-west sides. By reflecting the sun's rays, the tree does not heat up, nor the sap run until the nights are warmer, aiding the tree's survival.

Why such a large valley for such a small stream? The answer to this puzzle lies with the retreat of the glaciers. Twelve thousand years ago, Mud Creek was a raging river filled with meltwaters of the shrinking glaciers as they receded northward.

Today we see a slow, meandering stream, a wide stream bed and high banks which remind us of times past.



You are now nearing the end of the trail. You have seen how glaciers shaped this landscape, have felt the spirit of the north, and have crossed an imaginary boundary into the south. From the bounty of a trembling aspen forest to the sparse spruce woods; from a large lake to a quiet stream, Mud Creek is a world of transition, a meeting place.

This trail is typical of much of Prince Albert National Park. Driving south along Route 263 you enter true aspen parkland, while a walk around Boundary Bog immerses you in the world of a northern spruce bog.

This is a land of change, and our attitudes towards the land are also changing. Once viewing the land only in terms of its economic benefits, we now appreciate the need for wild areas, like national parks, where natural change continues unhindered by people.

We hope that you have enjoyed the trail and invite you to return in a day, a month or a year - every visit offers something new.

"We need an enrichment other than material prosperity and to gain it we have only to look around at what our country has to offer."

-Grey Owl, Tales of an Empty Cabin

WILDFLOWERS



PINK PYROLA

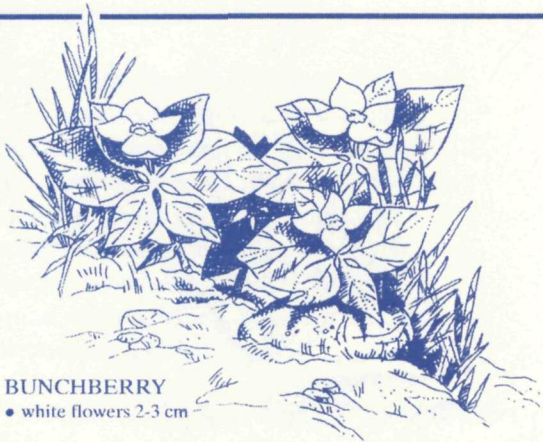
• pink flowers 1-1.5 cm



TALL LUNGWORT

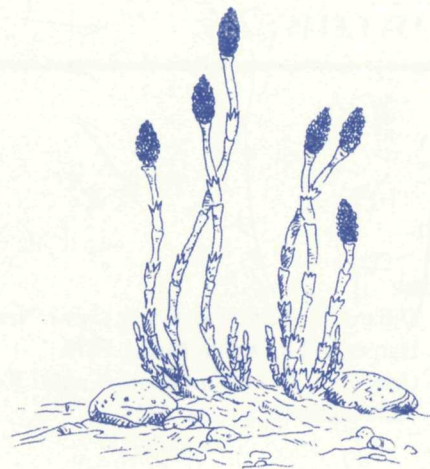
• blue flowers 2-2.5 cm

WILDFLOWERS



BUNCHBERRY

• white flowers 2-3 cm



HORSETAIL

• green plant 10-30 cm



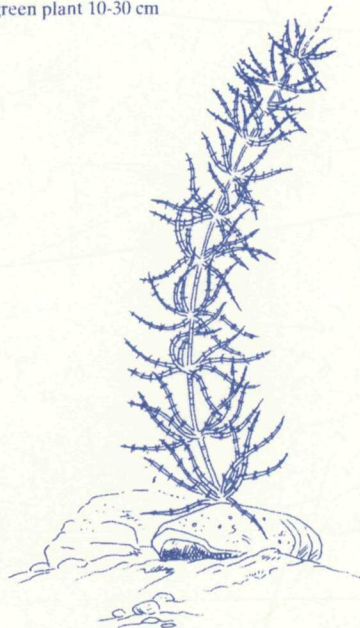
GOOSEBERRY

• berry 1 cm



VETCH

• plant 30-80 cm



Quotes

1. Dillard, A. *Pilgrim at Tinker Creek*. New York: Harper and Row Publishers, 1974.
2. Grey Owl. *Tales of an Empty Cabin*. Toronto: MacMillan of Canada, 1936.



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