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skills and

approaches for
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which involves

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the theories of
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research as well
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is presented
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mathematical
strictness and
proof. The first
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foundations of
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the theory of
plates are
presented, and
the theories are

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accompanied by
examples of
solving typical
problems. The
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postgraduates
and scientists
engaged in
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mechanics of
deformed

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and nonlinear

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plasticity and

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experimental
data of static
tension tests of
material, several
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are derived, and
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**moment when the
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yield surface but
it develops
continuously as
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yield surface,
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They introduced

the basic con

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Principle.

(Euler also gave
effective

variational char
acterizations of
the governing
equations.)

These scientists

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breathed life
into the theory
by proposing,
formulating, and
solving the
problems of the
suspension
bridge, the
catenary, the
velaria, the
elastica, and
the small
transverse
vibrations of an

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elastic string.

(The level of

difficulty of

some of these

problems is such

that even today

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vouchsafed to

undergraduates.

The realization

that such

profound and

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furnished a
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significant
contribution to
the intellectual
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development of a
model that would
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anisotropy and
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that compare
well with
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data. Key to
developing such
models-and to
meeting many
other challenges

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critical is
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from a
mathematical
standpoint, the
problem of the
equilibrium of a
perfectly plastic
body under certain
conditions. This
involves the
solution of two
problems in the
calculus of
variations: the

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strain problem and
the stress

problem. These
problems have

only recently been
solved, and this

volume aims to

give an up-to-date
account of this

work. The tools

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in particular in
solving problems
relating to the
'evolution' of
certain plastic
phenomena, the
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